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December 9, 1968

RAILWAY AGE

THE TRANSPORTATION WEEKLY

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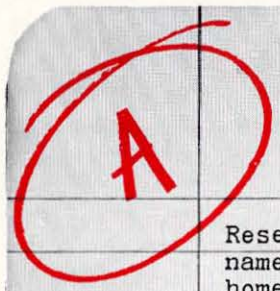

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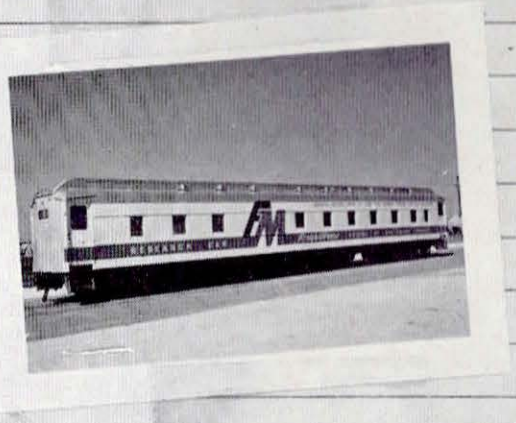

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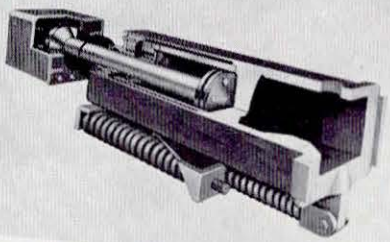

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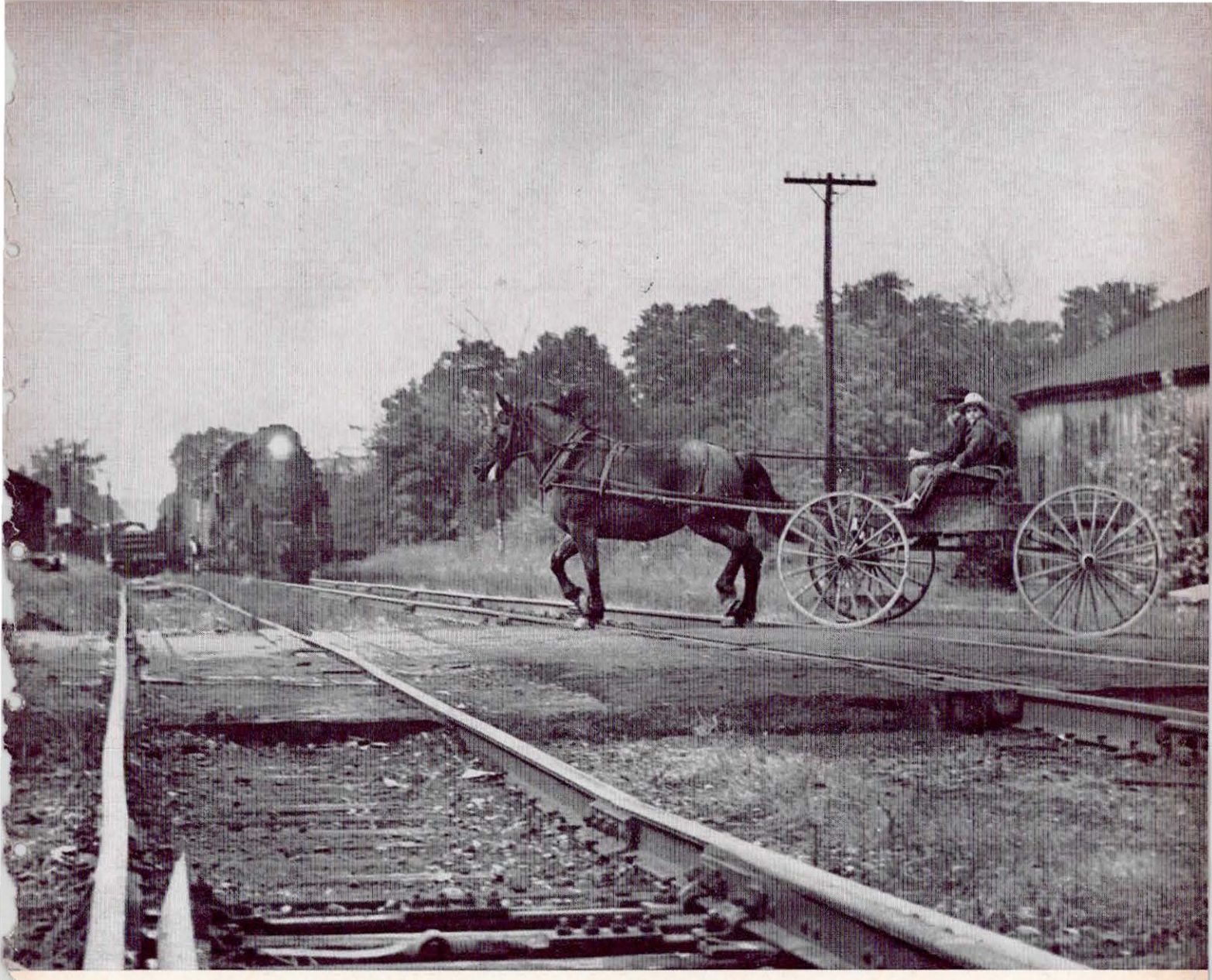

"I been thinkin', Ezra—it's gettin' so hectic 'round these parts—those railway critters oughtta set up one of them newfangled Servomatic crossing control systems!"

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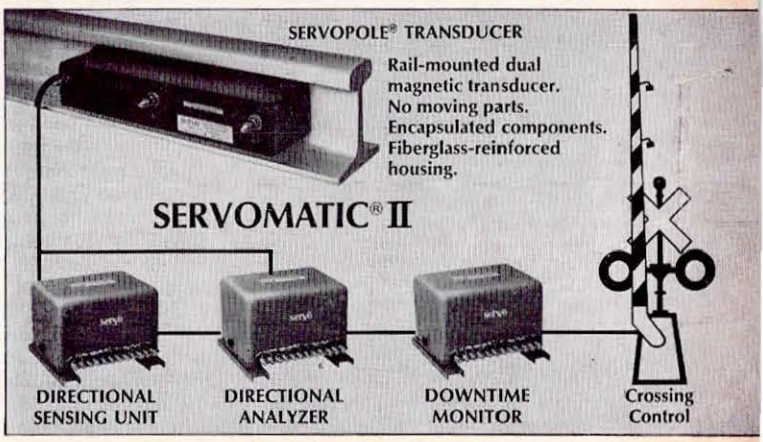

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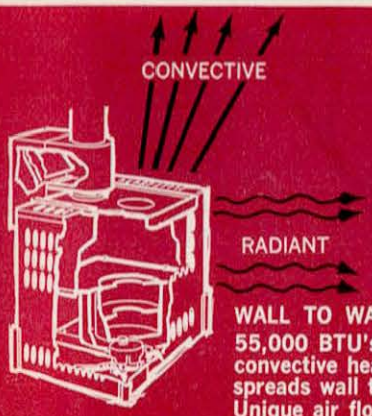

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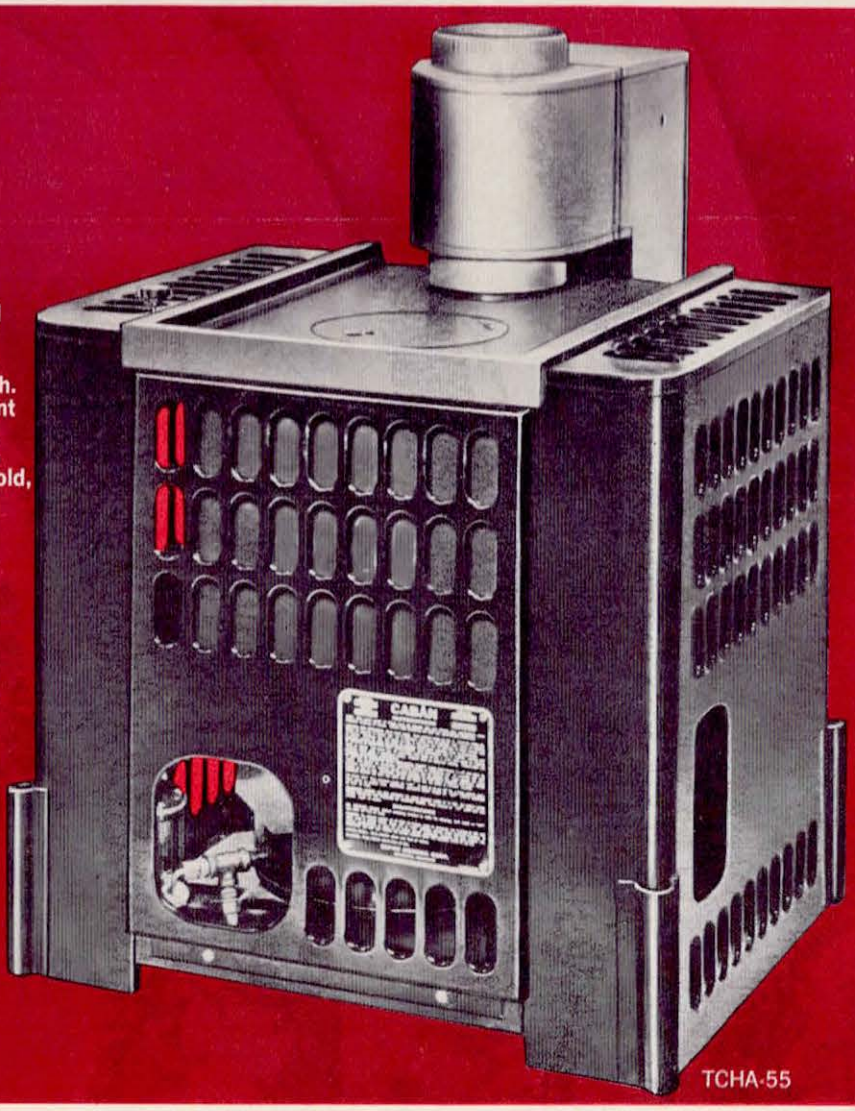

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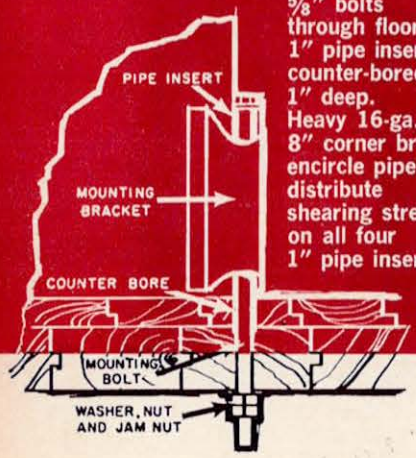

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RAILWAY AGE

Dec. 9, 1968 • Vol. 165, No. 23

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...AND COMING NEXT WEEK

Northern Pacific is in the final-testing stage on an $8.5-million, 1,724-mile microwave system, which will be going into full operation early in 1969. The Dec. 16 Railway Age looks ahead to what the system will be, what it will do for NP and its customers, as the major element in a new total communications program.

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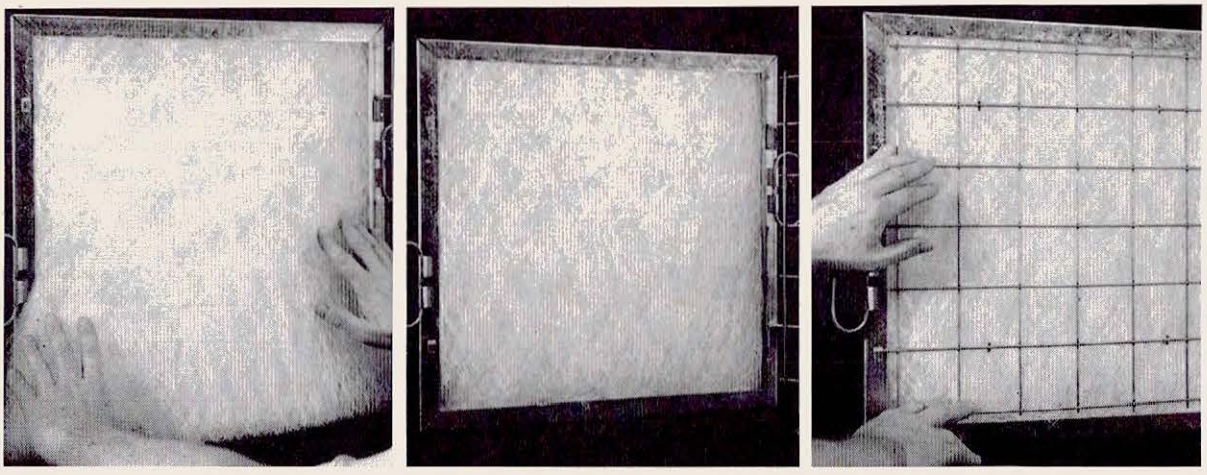

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SHORT AND SIGNIFICANT

Earnings up from '67 but still trail '66

Class I railroads reported net income of $386 million in this year's first three quarters—an increase of $43.8 million over the comparable 1967 period (which was a six-year low) but $274 million below 1966. Twenty-one of the 76 Class I carriers operated in the red during the first nine months of 1968.

CUS, Tishman seek station zoning change

Chicago Union Station and Tishman Construction Co. are asking the city of Chicago for zoning approvals to permit construction of a $50-million, 35-story office building atop the passenger station concourse (RA, May 6, p. 7). Two 20-story office buildings have already gone up on CUS air rights, and Tishman's over-all plan calls for a five-building, $200-million development for the Union Station area.

Plans advanced for Kennedy Airport rail link

Increasing pressure for rapid ground transportation to major airports is gaining results in New York where engineers are working on an easy access route to Kennedy International. A contract announced between the Kennedy Airport Access Project and the aerospace division of diversified TRW Inc., Redondo Beach, Calif., calls for advanced technology to transport passengers and baggage to the airport and a conveyance inside the terminal itself. Robert J. Zimmerman, director of transportation programs at TRW's Systems Group, said the goal is to have passenger and baggage express systems operating between New York's Pennsylvania Station and Kennedy Airport at the earliest possible date.

Shopcrafts' new-demand list complete

Two more of the shopcraft unions have now made their new contract demands known—and that completes the list of six organizations serving Section 6 notices. Demands being made by the Carmen and by the Firemen & Oilers are similar in scope to those served earlier by four other unions, the Machinists, Sheet Metal Workers, Electrical Workers and Boilermakers & Blacksmiths (RA, Dec. 2, p. 14).

PC centralizes marketing role in Philadelphia

The biggest merger of services within the Penn Central since the merger last February has taken place in PC's freight marketing division. Marketing specialists who formerly worked out of separate locations are now in a consolidated program at Philadelphia which is headed by James R. Sullivan, vice president marketing, Alfred E. Perlman, PC president, said the change completes the basic corporate organization of the Penn Central system. Henry W. Large, executive vice president, said "the combined marketing organization and its program provide us with the capability of giving our customers a complete package of equipment, rates and services tailored to their overall logistic needs. We have set up the organization to meet the requirements of customers whose transportation and materials handling needs differ greatly. Our goal is to organize these diverse segments of the market into logical groupings and provide each with high-level management attention that can develop its full volume and profit potential," Large said.

Burlington shops try something new with epoxies

Shippers who use mechanical reefers want the cars equipped with sidewall fillers—but plywood fillers cost about $750 per set, installation-labor costs might run double that figure, and as Burlington adds it all up, that's a lot of money, spread over a multi-thousand-car fleet. So, Burlington's shops at Lincoln, Neb., are trying something new—a test to see whether sidewall fillers can be installed with a new "superstick" epoxy adhesive. The estimated cost of the epoxy approach: Only several hundred dollars per car.

MONDAY MORNING REPORT

BRS WANTS TO SHED OLD IMAGE

The Bureau of Railroad Safety's goals are as lofty as they come. Its motives certainly are above reproach. What BRS wants is to change its image. At the same time, this safety arm of the Federal Railroad Administration wants to intensify its efforts in boosting the effectiveness of its rail safety program. This desire to step up activities could be interpreted by some as meaning only one thing: More penalties for federal safety statute violations are in the offing. Which gets right back to what BRS feels is its image problem.

POLICEMEN, OR AUDITORS?

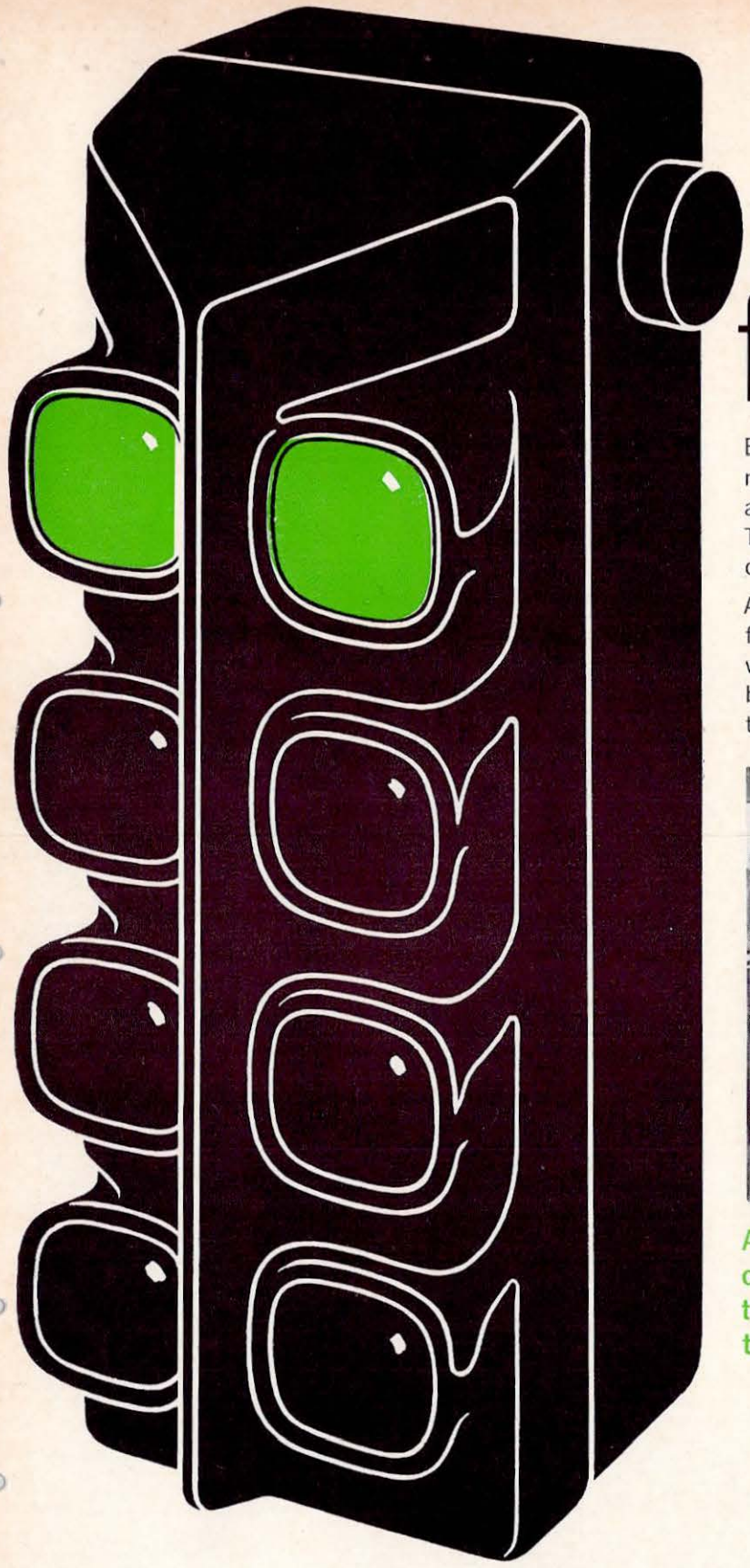
"Because we are required by law to impose fines, we have gained a reputation among some of the railroads as being 'policemen' only," explains a concerned Mac E. Rogers, BRS director. "This image has hurt us, perhaps even prevented our field men from being able to communicate the idea that they are on railroad property to promote safety and, ultimately, to reduce costly accidents." BRS, while still carrying out its role as enforcer of rail safety statutes, would like to be looked upon as the "auditor" of railroad safety efforts.

THE GOAL: RESULTS, MEASURABLE ON THE RECORD

BRS's Washington headquarters staff has been huddling in a series of special conferences this past year with territorial safety investigators in all seven of the Bureau's regions. The conference series, which concluded just recently with a session in Region Four, the seven-state territory headquartered in Chicago, had one overriding theme: Let's change our way of operating so that we can get results. To get results—meaning a reduction in accidents, not necessarily an increase in fines—BRS officials want their field representatives to encourage railroads to promote accident-prevention programs, to improve communication lines with railroad officers, to inspire an exchange of ideas on safety practices. As auditors, they must monitor railroad safety programs, provide motivation for greater efforts in the realm of safety.

PARTNERS, NOT ANTAGONISTS

Federal Railroad Administrator A. Scheffer Lang told the Region Four investigators that they must "become partners of the railroads, not their antagonists, in seeking the elimination of safety problems on the railroads." And, in shrugging off the old "policeman" image, they may be able to perform more effectively. "After all," Lang tells the BRS investigators, "the ultimate measurement of your success is the safety record compiled by the carriers."



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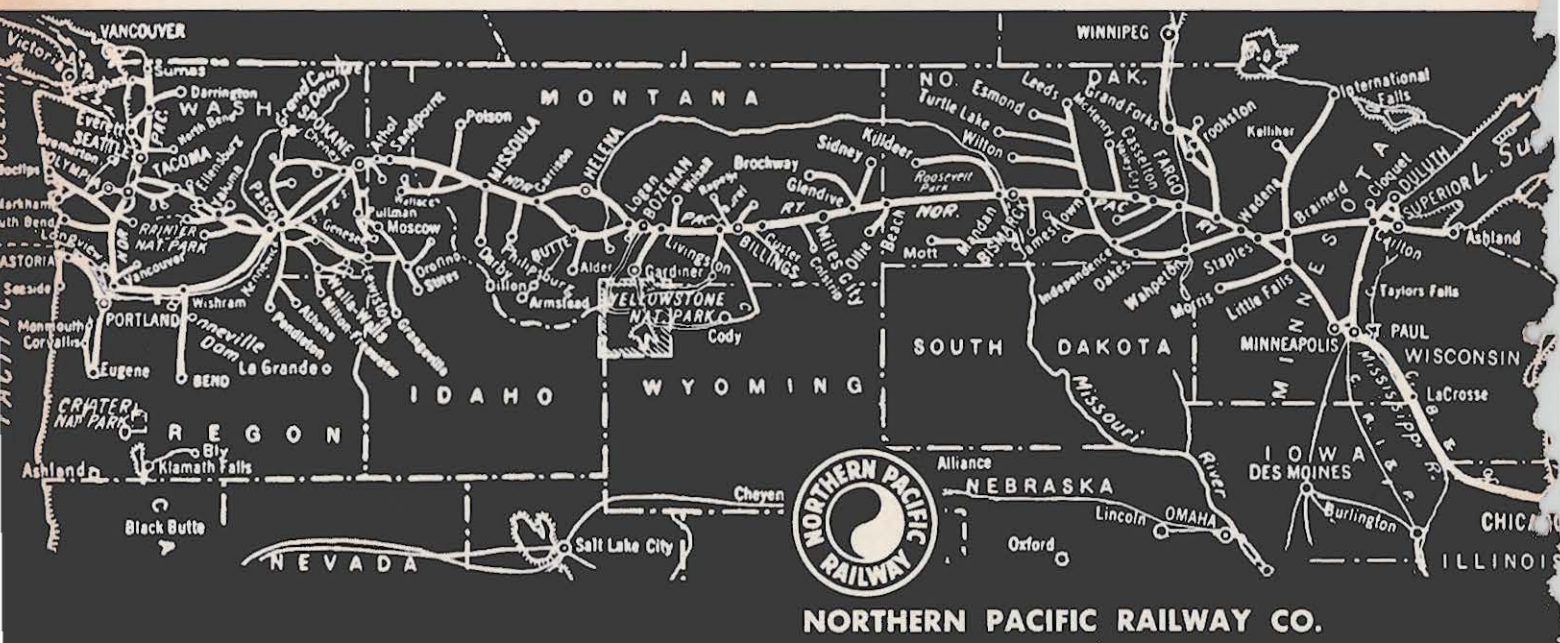

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RAILWAY AGE
THE TRANSPORTATION WEEKLY
December 9, 1968

WEEK AT A GLANCE

C&NW, NP, N&W spending plans come on strong

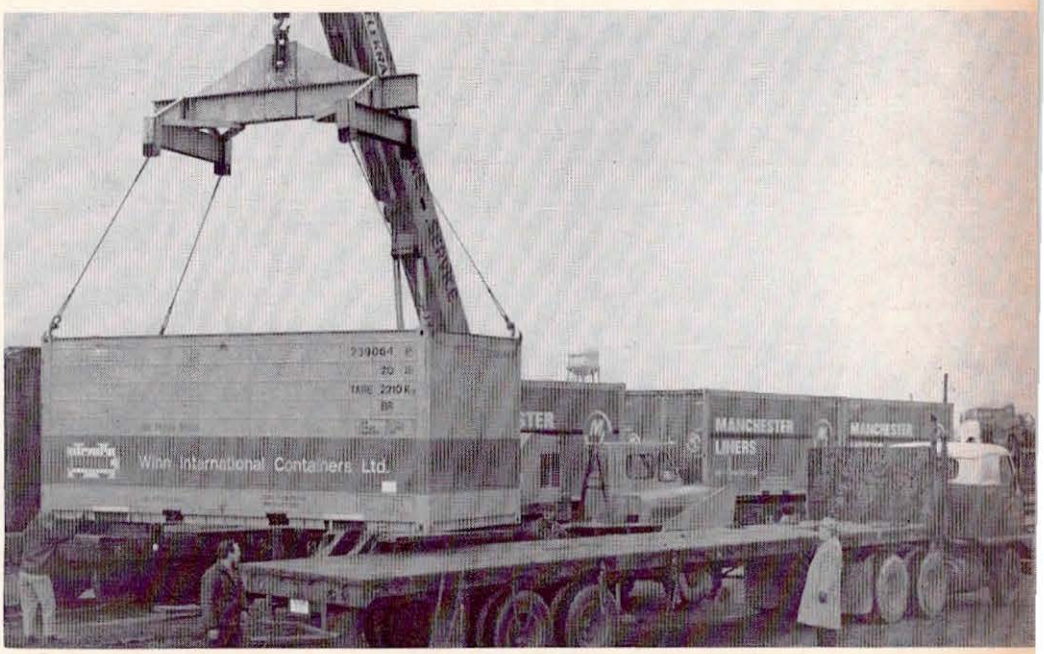
Chicago & North Western is spending $30-million-plus for 2,000 "deluxe" box cars from Pullman-Standard. Northern Pacific is taking the wraps off a $41-million capital-spending program for 1969. Norfolk & Western, which announced an order for 1,000 box cars from ACF little more than a week ago, last week ordered another 1,000 cars from the same builder. And with these plans firm and others taking shape, 1969 began to look more and more like a banner year for railroad improvement investment. C&NW's 2,000-car order, for example, is billed as the largest single order for freight cars placed in the U.S. in 1968, and the largest single order for box cars received by P-S in more than 10 years. Delivery of these cars will bring a 40% increase to North Western's fleet of 50-foot box cars.

High-production year ahead for the carbuilders

There's good news this week in such diverse places as Michigan City, Ind., Bessemer, Ala., St. Louis, Mo., just to name a few spots where the freight-car construction business is once again booming. With C&NW and N&W coming in with new orders totaling 3,000 cars, production lines that were loafing along (or even out of business) just a few months ago, are suddenly cranking up for volume production. Case in point: Pullman-Standard, which will set up lines at both Michigan City and Bessemer to meet the by-June-1 delivery target on C&NW's 2,000 box cars.

New boost for containerization, via CN-GTW

Ship, train and truck did what each does best, as a new intermodal container service was opened up between England and the United States. The first shipment to come through: Four containers loaded with Scotch whisky, shipped from Manchester, England to Chicago. Under a new arrangement between Manchester Lines and Canadian National-Grand Trunk Western, the boxes came by containership to Montreal, were transferred to rail cars for movement to Chicago and completed the journey to consignees on flatbed trucks. To handle the U.S. end of the international, intermodal operation, Grand Trunk is planning for development of major container terminals at both Chicago and Detroit, with other terminal points to be added later, if traffic demand makes expansion advisable. The CN-GTW agreement with Manchester is one of the newest intermodal setups to get into operation, in a year that has seen heavy emphasis go to promotion of import/export containerization and intermodal or multimodal handling, and in a year that has been marked by large-scale setting-up, in the U.S. and in Canada, for both simple import/export traffic movement and for the more complex landbridge operations which will be coming up.



GUS WELTY

LINES ON LABOR

"BUST THE UNION" is a cry that hasn't been heard in the railroad industry for a long, long time. But it rang out again as Emergency Board 172 heard from the Brotherhood of Railroad Trainmen in the crew-consist investigation. And the charge bears a bit of examination.

AS EVERYBODY KNOWS, the railroad labor movement has a long and proud history. Quite a bit of "union busting" did indeed go on in the early days, before the Brotherhood of Locomotive Engineers showed the way to organization. But that was some time ago. The BLE is 105 years old. The Order of Railway Conductors & Brakemen celebrated its centennial this year. The BRT and the Brotherhood of Locomotive Firemen & Enginemen are within striking distance of the 100-year mark. As a footnote, top officers of four of the operating unions are now expressing confidence that a new organization, the United Transportation Union, will come into being next Jan. 1.

SOMEHOW, ALL THIS makes a cry of "union busting" ring rather hollowly. At the very least, it would appear that the railroads—if they *were* interested in breaking up the organizations—have failed miserably. Still, the BRT regards the people-to-people campaign of Illinois Central, Louisville & Nashville and Belt Railway of Chicago as some kind of wrecking drive. BRT President Charles Luna is quoted as saying he's "never seen anything like it before. In all my years of railroading since I was 15 years old, I have never seen anything like this campaign."

NO DOUBT, there is a fine line to be drawn, in all this, between management's legitimate serving of the employee's right to know—and an illegitimate kind of effort that might come under the heading of "union busting." It's true that a federal court restrained a fourth railroad involved in the crew-consist fight—Richmond, Fredericksburg & Potomac—in its communications effort. But so far as can be determined, no real challenge was laid down to the IC or L&N or Belt efforts—and that may be significant, since the BRT is not known for its hesitancy in issuing challenges.

IT WOULD SEEM that the employee, any employee, has a right to know what's at stake in a contract dispute. He's the one for whom the union is bargaining, unless the whole theory of collective bargaining has gone cockeyed. But what happens if it appears that the employee is getting only one side of the story? Somebody ought to be protecting the right to know. And who else, but management?

ICC sets date, ups price for PC take over of NH

Penn Central must absorb and start running the New Haven Jan. 1, and pay an extra $20 million for that dubious opportunity, the Interstate Commerce Commission said last week. In a court-ordered revision of its March 1 inclusion ruling, ICC raised the NH price to $145.6 million, and said the absorption should be "a binding transfer to Penn Central free and clear of all liens and encumbrances . . ."

The Department of Transportation added its support: It "applauds" the decision because it follows DOT's policy and "will permit continued operation of a railroad that is an essential component of the commerce of the Northeast." DOT promised whatever support is needed to expedite the takeover.

ICC produced a new NH liquidation value of $162.7 million, compared with its earlier $125.8 million. The difference is due mainly to what ICC called previous undervaluation of NH interest in Boston & Providence and Grand Central Terminal properties.

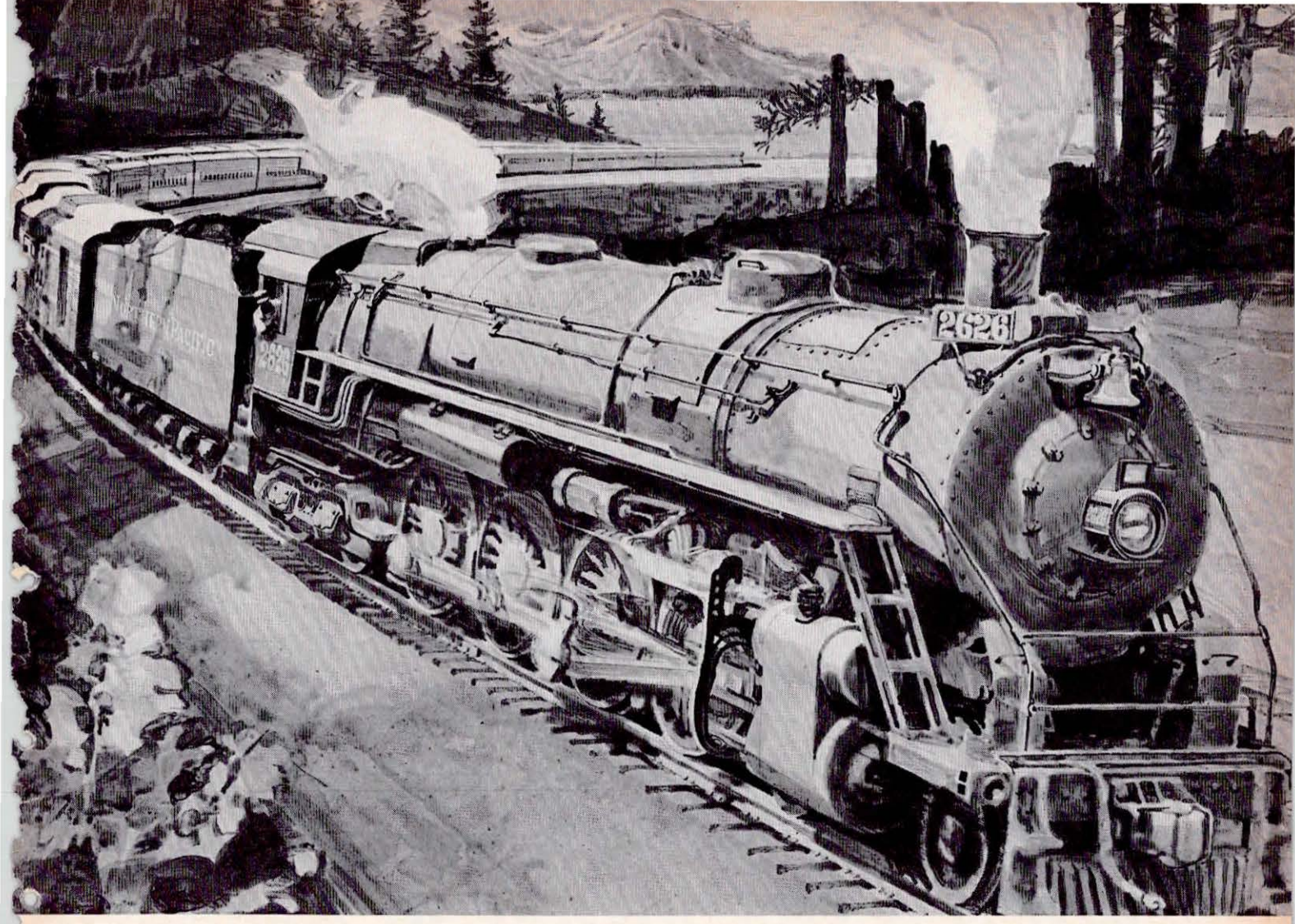
From the new valuation, ICC subtracted $22.1 million for "certain pricing considerations," but added $5 million of NH losses since the Penn Central merger, to get the new price. However, what PC ultimately pays out will be $178 million after addition of pension, labor protection and equipment obligation costs.

ICC also ruled that Erie Lackawanna get the same traffic protection already granted to the Reading, the Western Maryland and the Central of New Jersey.

Under the ICC plan, New Haven will be reorganized as a closed-end, nondiversified management investment company after receipt of cash and securities for the properties. The new company will hold the PC securities for anticipated appreciation, and issue its own securities.

Neither total abandonment nor continued NH operation in its present shape are consistent with the public interest, the ICC said. Nor should requests for judicial review of the price delay the takeover.

"The primary consideration is the public interest, and in the present context the continuance of NH service without interruption is a public interest matter of paramount importance. The takeover should occur on Jan. 1, 1969, even in view of the high probability that litigation will continue beyond that date over the price and other terms of inclusion," the ICC said.



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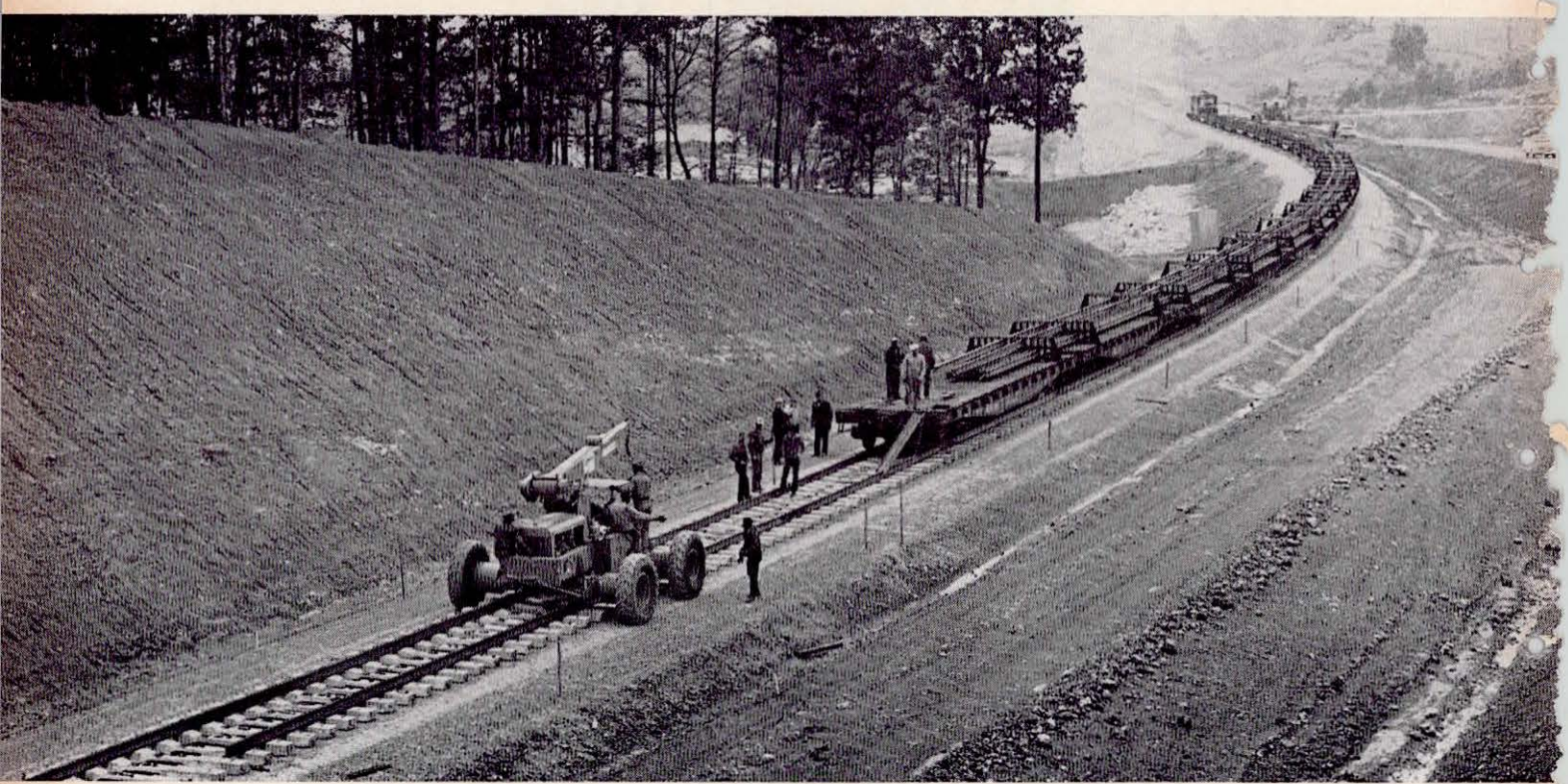
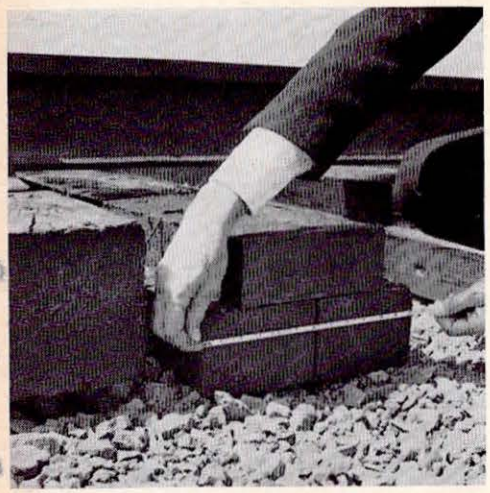
What's the latest in crosstie



CONCRETE TIES, MR-2 type, are also being tested on L&N. Stretch above, one mile long, was laid with continuous welded rail.



TIES OF THREE PIECES (above) are being tested by the Louisville & Nashville. Such built-up crossties are installed (left) with standard equipment.

research?

Studies are constantly under way for new and improved methods of putting longer life into crossties. Greater economy is another major goal. Recent developments in crosstie technology were cited at the Railway Tie Association meeting.

To the uninitiated, the railroad crosstie doesn't seem much different from what it has always been. Freight cars get bigger, locomotives get more powerful, communications systems become more sophisticated—but a crosstie is still a crosstie.

Appearances deceive the uninitiated. As in most other fields of railroad operation and plant, there is considerable research, development and test work under way—a fact brought out clearly at the recent annual meeting of the Railway Tie Association. RTA's sessions showed, in effect, a cross-section of recent and current efforts to push back the frontiers of knowledge about the crosstie—how to make it last longer, how to develop greater economies in its use through other means.

A number of different projects involving crosstie research were cited in an address by H. E. Wilson, Santa Fe System assistant chief engineer, and president of the American Railway Engineering Association. Wilson's first reference was to a 1954 project in which the Timber Engineering Co. fabricated some laminated ties that were placed in track of the Pennsylvania between Altoona, Pa., and Harrisburg. These ties, he explained, had hardwood faces and softwood cores. In 1964, Wilson said, the Committee on Research and Product Development of the RTA inspected these ties and found them "to be in very good condition."

● **Ties from Brazil.** Wilson mentioned that the AAR had made some tests of Brazilian woods for use as crossties. These tests, he said, showed that 10 species of such woods were found to be superior in bending to creosoted native red oak ties. Also, a single species that was tested in the tie-wear machine was found to be superior in its resistance to plate cutting compared with the oak tie. So far as decay is concerned, the tests have not been under way long enough to arrive at a conclusion, said Wilson. "Past experience indicates, however," he added, "that wood ties do not last very long when removed far from their habitat."

The possibility of using epoxies in repairing and fabricating ties was also mentioned by Wilson. "Laboratory tests," he said, "have been made by filling spike holes and repairing areas damaged by tie-plate cutting with epoxies mixed with sand and other materials. In fabricating ties, the plan was predicated on the fact that 90% or more of the wood of discarded ties is still sound. These ties would be chipped or 'hogged' and the chips would be mixed with epoxy to form new ties by extruding or casting. It was concluded that for the time being the cost of this treatment would be prohibitive, but possibly something along this line can be worked out in the future."

Also noted by Wilson was a research project undertaken in 1965 jointly by the RTA and the AAR Research Center. Involved in this investigation are analytical studies, laboratory tests and a field installation on Chicago & North Western (RA, July 15, p. 18) which involves ties of various sizes installed at different spacings. It is expected that it may be possible to draw some definite conclusions in about a year.

Descriptions of crosstie test installations now under observation on Louisville & Nashville were given by the road's chief engineer, J. B. Clark. Currently, he said, the road has test installations of specially-manufactured laminated or composite timber ties and concrete crossties.

● **"Unique" tests on L&N.** The installations of specially-manufactured treated wood ties are "probably unique," said Clark. The road is cooperating with two wood-preserving companies in these installations. In one, near Murfreesboro, Tenn., the cooperating concern is the Koppers Co., Inc. In the other, near Antioch, Tenn., the road is cooperating with the Southern Wood Preserving Co. Both installations are in a main track that carries a little less than 20 million gross ton-miles per mile of track each year. At both locations, standard ties were installed for comparison with the specially-manufactured ties.

The test installation of ties supplied by the Southern Wood Preserving Co., which went into track in March 1967, included 721 experimental dowel-laminated wood ties with a 12-inch base, which were installed out of face. About one-half of these ties, said Clark, are on tangent track and are spaced on 30-inch centers. The remaining ties are on a two-degree curve and are spaced on 24-inch centers.

● **Ties are laminated.** "The ties are

of four general types," explained Clark. "Two types were designed to utilize lumber sizes more readily available than crosstie timbers. The first type was manufactured by fastening two pieces measuring 3 inches by 6 inches by 8½ feet together with four dowels to form a 12-inch-wide base, 3 inches thick. A 4-inch by 8-inch by 8½-foot piece was doweled along the top of the base so that the tie as shipped to the site was a laminated or composite crosstie having a base of 12 inches, a height of 7 inches and a width of 8 inches.

"The second type of tie was made in the same way but using 4-inch-thick pieces for the base and a 3-inch-thick piece for the top, again to give a crosstie with a 7-inch depth, a 12-inch-wide base and an 8-inch top.

"Approximately 12 combinations of wood species were used in making these crossties. Oak, hickory and mixed hardwoods were used as top lumber. The same species, along with pine, were used for making the base pieces. A few of the crossties were made entirely of pine. Some of these pine crossties were treated with Monsanto PR preservative and some had hardwood rail-plate inserts. About one-fifth of the crossties used one-half-inch lag screws and metal washers, instead of dowels.

"A third type of experimental crosstie was made by dowelling together two pieces of 6-inch by 7-inch by 8½-foot timbers to form a 7-inch by 12-inch by 8½-ft crosstie.

● **Special treatments used.** "The fourth type was a solid 7-inch by 12-inch by 8½-foot crosstie. Fifteen of these crossties were treated with a 60/40 creosote-coal tar solution instead of the usual 80/20 creosote-tar solution, and 10 were treated with PR resin. This crosstie was intended to be trapezoidal in shape but the plans were changed to use the rectangular shape because of rail-anchor contact."

Clark indicated that the ties in this installation with the hardwood plate inserts were placed in track without tie plates; all the others were installed with double-shoulder tie plates.

The installation of ties manufactured by the Koppers Co. was made in May 1967, and involved 272 specially-manufactured ties, said Clark. These ties are of two general types. The first type consists of all-wood ties made by dowelling two pieces together to form a composite tie 7 inches deep and 10 or 12 inches wide. The ties with a 10-inch width were installed on 25-inch centers; those 12 inches wide were installed on 30-inch centers.

The ties of the second type manufactured by Koppers Co. are wood ties having a special feature for which the company is seeking a patent.

The ties in both installations, said Clark, are identified so that inspections

JOINT IN BUILT-UP TIE made from two pieces of wood is pointed out by L. M. Nichols, L&N tie and timber agent.

can be made of them from time to time. But he indicated that much more time will have to pass before any conclusions can be drawn from the tests.

● **Concrete ties under test.** In addition to the wood-tie tests the L&N is in the process of testing concrete ties, Clark said. In 1963, the road installed concrete ties on the lead to the hump at its new yard at DeCoursey, Ky., south of Cincinnati. More recently, a test section of concrete ties was installed on a one-mile stretch of track which was part of a relocation project. In the relocation, about five miles of new track was constructed on a new roadbed.

In the new track, which was laid with welded rail, wood ties were used except for a one-mile section which was laid with concrete ties. About one-half of the concrete-tie test section is on a 3-degree curve and the other half is on tangent track. On the curve, the concrete ties have 25-inch centers, and on the tangent section they have 30-inch centers. Clark said the concrete ties, of the MR-2 type, were purchased from the American Concrete Crosstie Corp.

● **Trends in tie technology.** Hints of possible future avenues of development in wood-tie technology came from J. H. Barnett, Jr., president of the American Wood Preservers' Association, who referred to crosstie preservation as "a technology on the move."

Barnett first noted some of the advances and changes that have occurred in the technology of crosstie preservation.

"We have seen the hewn tie disappear from the scene," said Barnett, "not necessarily because it was not serviceable, but because the breed that had the stamina and patience to make them no longer exists. Vapor-drying was perfected by Dr. Monie Hudson to reduce the conditioning time from about one year to less than 24 hours, albeit with less development of shrinkage stress.

"Tie-dowelling equipment has been perfected and is widely used. Incising machinery was put to use about 1936, with the double effect of permitting greater penetration of preservative and of relieving shrinkage stresses that otherwise would cause massive checks and premature failure of the tie. Plastic pads to cushion tie plates are available to reduce plate cutting."

Next, Barnett got into a discussion of "several pertinent new scientific disciplines . . . that may lead to solutions of some of our problems." One of these is represented by a "new cult of wood technologists" that emerged during the 1950s under the leadership of Dr. Wilfred A. Cote, Jr., of the Department of Wood Engineering at Syracuse University: "They applied electron microscope techniques to wood and have shown wood ultra structure photomicrographs up to 85,500 diameters. Then, for the first time, the student of wood could, in his mind's eye, climb down into the cells of wood and visualize the many structural parts, and their relation to one another.

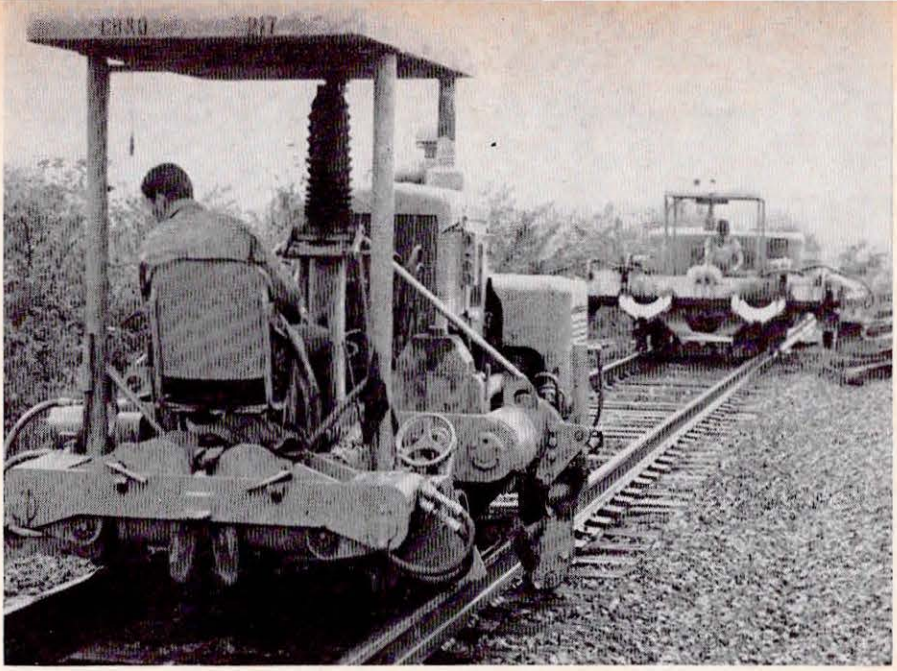
"This knowledge will lead to new methods for impregnating wood with preservatives and other substances."

● **"Instant" technology.** Nuclear magnetic resonance (NMR) was another discipline mentioned by Barnett. "By its use," he said, "the kind and quantity of an organic chemical—with strong evidence of exact structure—can be obtained in four minutes, whereas before such analysis required weeks. It is capable of determining the sum of creosote plus moisture in wood. Infra-red spectroscopy, ultraviolet spectroscopy, micro (radio) wave absorption, x-ray diffraction, polargraphy and others all are now functional and all give chemical answers in minutes, as opposed to the previous methods which required a much longer time. And all are incrementally contributing to knowledge that will guide wood-preservers into areas of greater effectiveness."

Computer technology also has a place in wood preservation, Barnett indicated. "There are pressure-treating cylinders now commercially available," he said, "that are controlled by punched cards, on which the complete treating cycle is programmed. To treat a charge of timber in one of these units requires the operator only to insert the card for the treatment required, and to punch the 'start' button. The treatment is automatic, even to the final opening of cylinder door." ■

Crosstie renewal on the Q—in doubletime

Tie Injector raises production from 400 to 800 a day.



OLD TIES are cut into three pieces by a Kershaw Dual Tie Saw. The center pieces are picked up by the machine and placed on the track shoulder.

Burlington had two mechanized tie gangs last year that were each averaging less than 400 crossties renewed per day. After trial of a new machine—Kershaw's Tie Injector—Burlington saw that with this equipment's use, a production rate of 800 ties or more could be obtained. Burlington acquired two of the Kershaw units for this year's work—and production has been substantially increased.

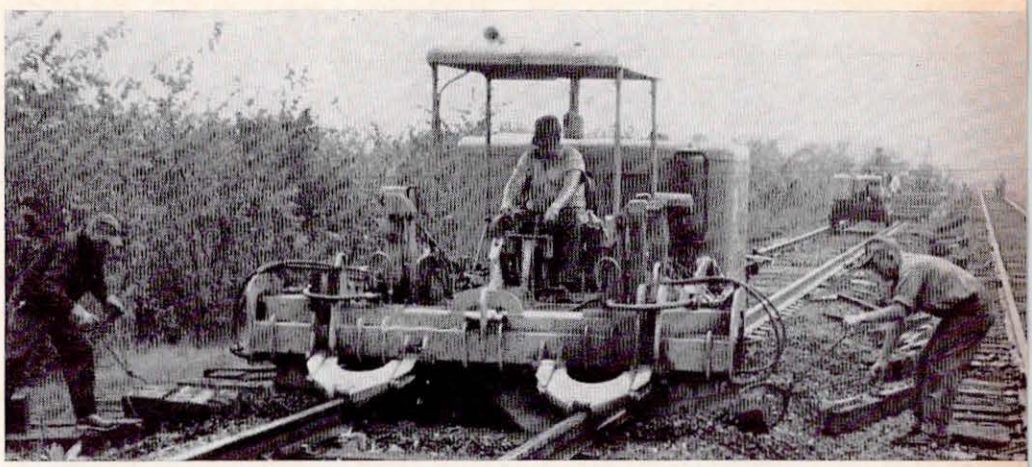
The Tie Injector, said to be capable of inserting ties at the rate of four per minute, became the pace-setting unit for the gang. The gang organization, therefore, as well as its equipment, had to be revised to balance work operations. After some study, two other new machines were acquired and substituted for existing units, but the number of men in the gang remained the same.

● **Last year's gang.** As it existed in 1967, each tie gang was comprised of a foreman, four machine operators, three laborer-operators and 14 laborers. Its equipment consisted of an RTW Tie Handler, Kershaw Dual Tie Saw, Kershaw Tie Bed Scarifier-Inserter, Jackson Maintainer, Nordberg Plate Placer and a Spot-Air 3R-36 compressor which powered two spike hammers.

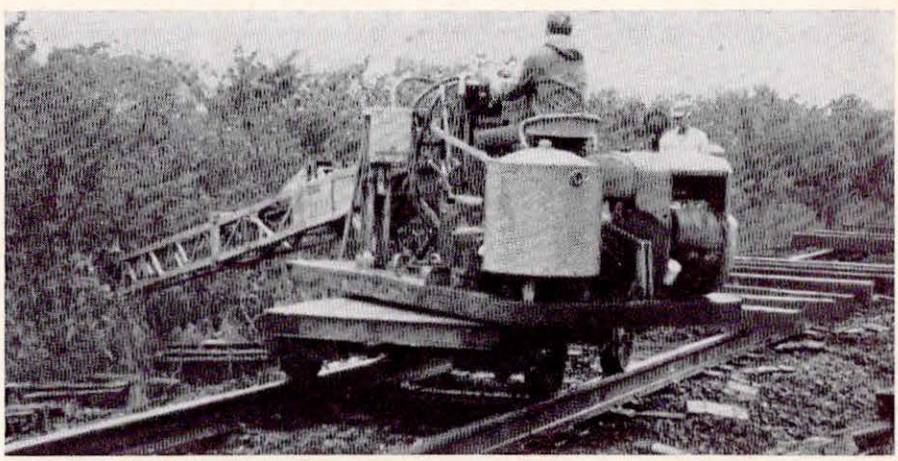
Tie-renewal operations were carried out this way: One laborer went ahead removing the rail anchors engaging the ties to be renewed. Spikes were then pulled from these ties by two men with claw bars.

The new ties, which had previously been unloaded by the section forces on the roadbed embankment, were then turned by a laborer to place the tie-plate seats up. The operator of the Tie Handler positioned them on the track shoulder adjacent to where they were to be installed.

Each old tie to be renewed was cut into three pieces by the Dual Tie Saw.

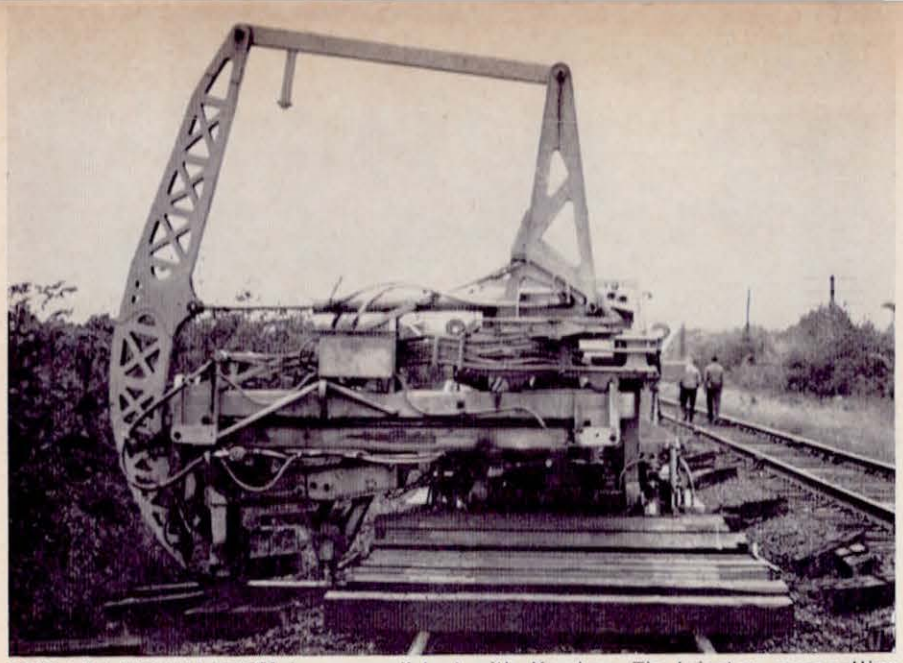


TIE ENDS are pushed from beneath the rails by a Tie-End Remover to where two men can pull them all the way out.



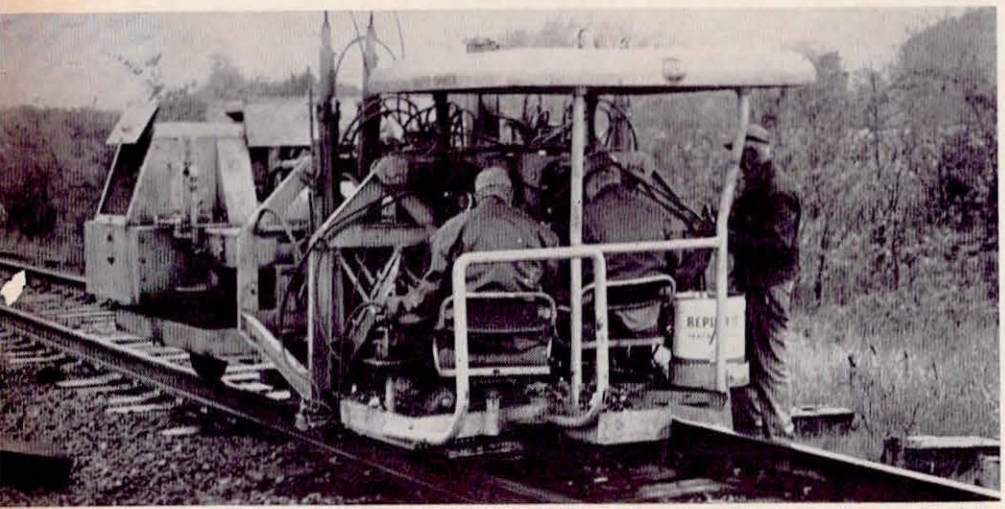
NEW TIES are picked up by RTW Tie Handler and set on rails. Operator places ties with plate-side up, flipping the ties when necessary to accomplish this.

This machine also picked up the center piece, dropped it between the rails and pushed the tie ends out of the track. The tie pieces were picked up by two laborers and piled on the roadbed shoulder. Using a Scarifier-Inserter, an operator and a laborer installed the new tie. Two other laborers straightened the new ties in their beds and scraped the ballast off the ties under the rails,



NEW TIE INSTALLATION is accomplished with Kershaw Tie Injector, pace-setting unit for the gang. It picks ties off rails by their ends, and inserts them in the prepared beds.

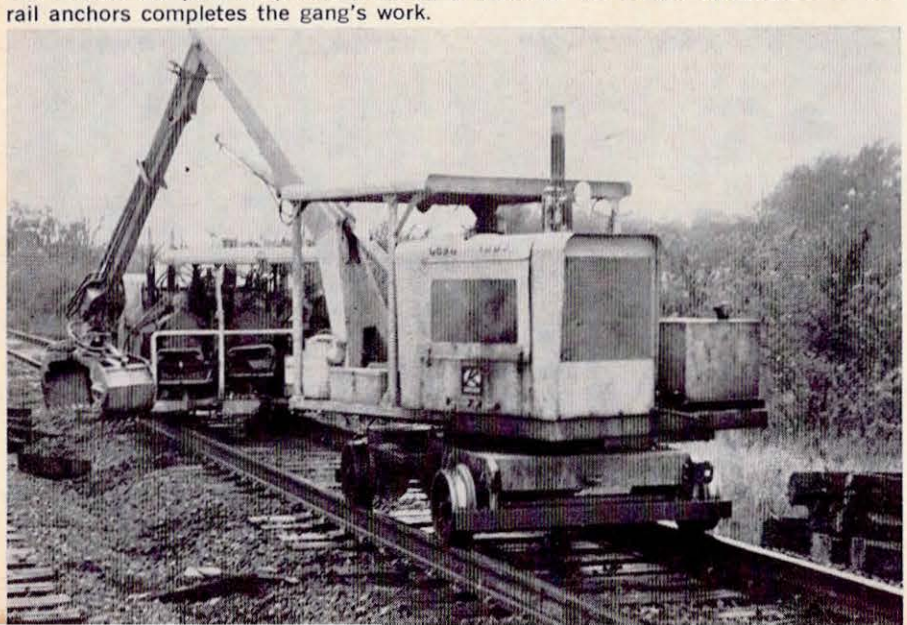
PACE-SETTING TIE INJECTOR . . .



SPIKES ARE DRIVEN by an RMC Auto-Spiker after the rails have been raised by a Nordberg Plate Placer and the tie plates set in position.

. . . GETS THE JOB FINISHED FAST

TIE STUBS are picked up and piled by a Kershaw Tie Crane. Application of the rail anchors completes the gang's work.



after which the Jackson Maintainer tamped the ties up tight to the rail.

Following this, a man placed the tie plates on the ends of the new ties and two other men, using the Plate Placer, inserted the plates beneath the rails. The spiking was done by five men. Another laborer reapplied the rail anchors, completing the necessary work.

● **How it is done now.** In reorganizing its tie gangs, Burlington geared all other operations to the production-rate of the Tie Injector. CB&Q people reasoned that this machine must be free to carry out its function without being delayed by advance operations if it was to work at its full potential. To this end, the road made several changes for speeding up the head operations.

The two men pulling spikes can keep ahead of this operation. A Fairmont Spike Puller was assigned for use in certain areas. The Tie Saw was equipped with a mechanical hand that picks up the center tie pieces and throws them from the track section, thus eliminating one man from the gang.

The scarifier assembly of the Scarifier-Inserter was removed and replaced by a tie-end-scarifier-remover attachment. This unit now pushes out the tie ends and at the same time prepares the crib for the new tie.

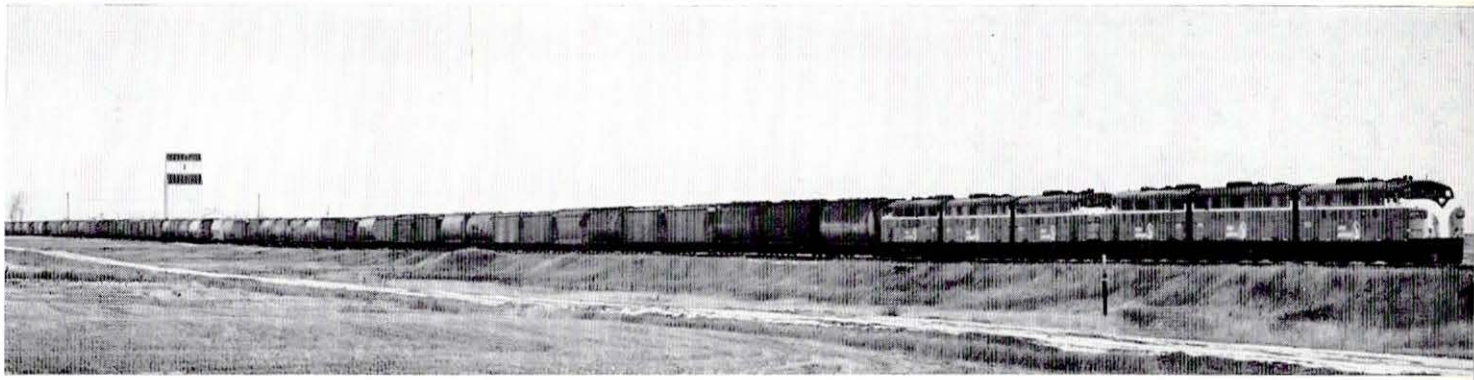
Since the Tie Injector obtains its supply of new ties from the rails ahead of it, the RTW Tie Handler is used to pick up the previously-distributed new ties and place them on the rails.

With these changes, the work ahead of the Tie Injector was in better balance so far as speed was concerned. But, to have a fully-balanced gang, the road also made some changes in the operations behind the pace-setting unit.

These included substitution of an RMC Auto-Spiker for the two air-powered drivers and addition of a Kershaw Tie Crane to pick up and pile the tie pieces for later disposal.

Burlington engineers are convinced they have a very efficient tie-gang organization—but, they still are studying possible opportunities for further improvement. Recently, for example, it was found that the Tie Handler could flip the ties, turning them right-side-up on the rails, thus eliminating another man from the operation.

● **High output is achieved.** Production has increased to an average of 833 ties installed per day, based on figures for July, with a maximum of 1,200 per day. The average output of about 38 ties per man-day has been achieved, even though the time for delays such as rain, clearing trains on adjacent tracks and machine downtime is charged to the gang. The men are housed in bunk cars which are moved from place to place as the work progresses, thus keeping the gang as close to the work-site as possible. ■



WITH SIX 1,500-HP DIESEL UNITS on the point, the first GN-CB&Q potash unit train heads south for the farm country.

Potash unit trains are rolling

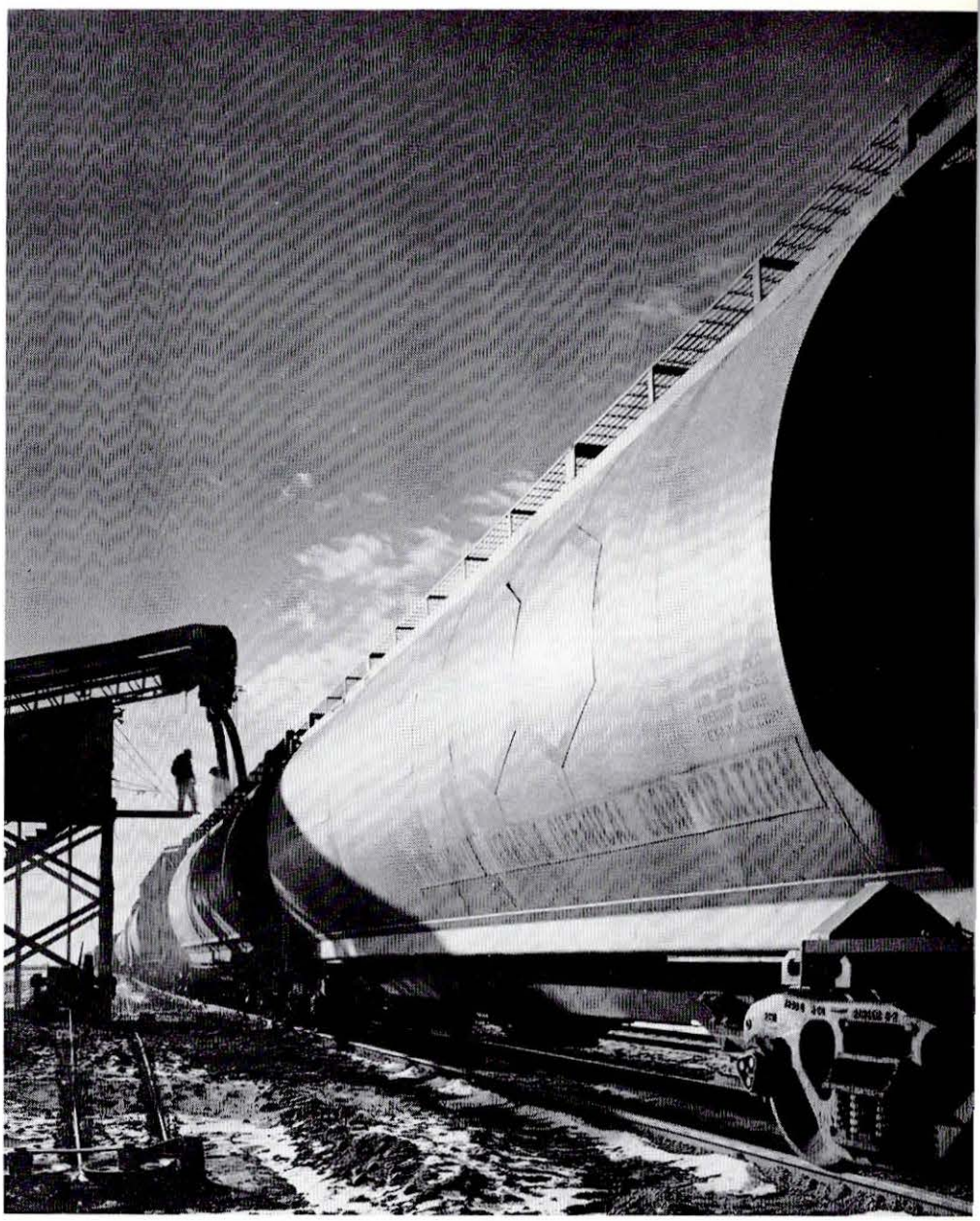
GN, CB&Q and IMC are the prime movers in a new service aimed at helping producer, consumer, carrier

If the green fields of the Midwest start looking a little greener, a little lusher, to Great Northern and Burlington marketing people next spring, credit it all to a new transportation service which starts north of the border in Saskatchewan and ends up in the breadbasket country 1,000 or so miles away.

With 100-car-plus unit trains, a train every four days, 70,000 tons a month, GN and CB&Q will be keeping the Midwest well supplied with the Canadian potash which goes into the fertilizer which helps keep the farms producing.

The first unit train—118 cars, 11,075 tons—headed south in late November, in what GN and CB&Q people agree was a "flawless operation." Months of planning had gone into the operation before a wheel turned. And the two railroads and International Minerals & Chemicals Corp. are convinced they have a winner. As IMC President N. C. White put it, the unit-train service is "a significant breakthrough in better distribution of the basic fertilizer materials on which U.S. agriculture depends."

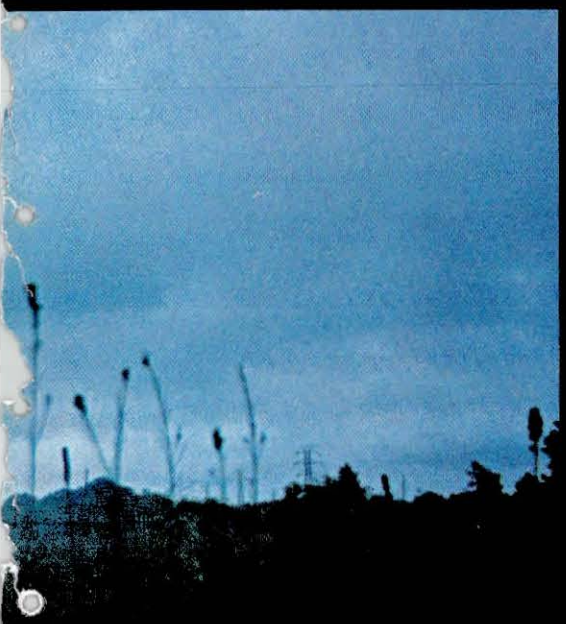
● **A matter of cooperation.** Railroad marketing men stress the teamwork that went into setting up the operation—in determining optimum rates and volume, in setting schedules, in deciding on terminal locations. The distribution pattern isn't yet in its final form—warehousing must still be built at several points. But the benefits from the service seemed to be so significant that nobody wanted to wait until every block was in place. So, the potash will



ABOUT 25 IMC covered hopper cars will be loaded each day at Northgate. Unit trains will leave the terminal every four days, year-around, under present plans.

Never mind the fine print.

What do you do when it doesn't work?



Sometimes, even something we make stops working.

Sometimes it's our fault. Sometimes it's your fault. And, sometimes it's nobody's fault. That's why every industry has warranties.

Ultimately, only one thing is important: being able to count on the good name of the manufacturer.

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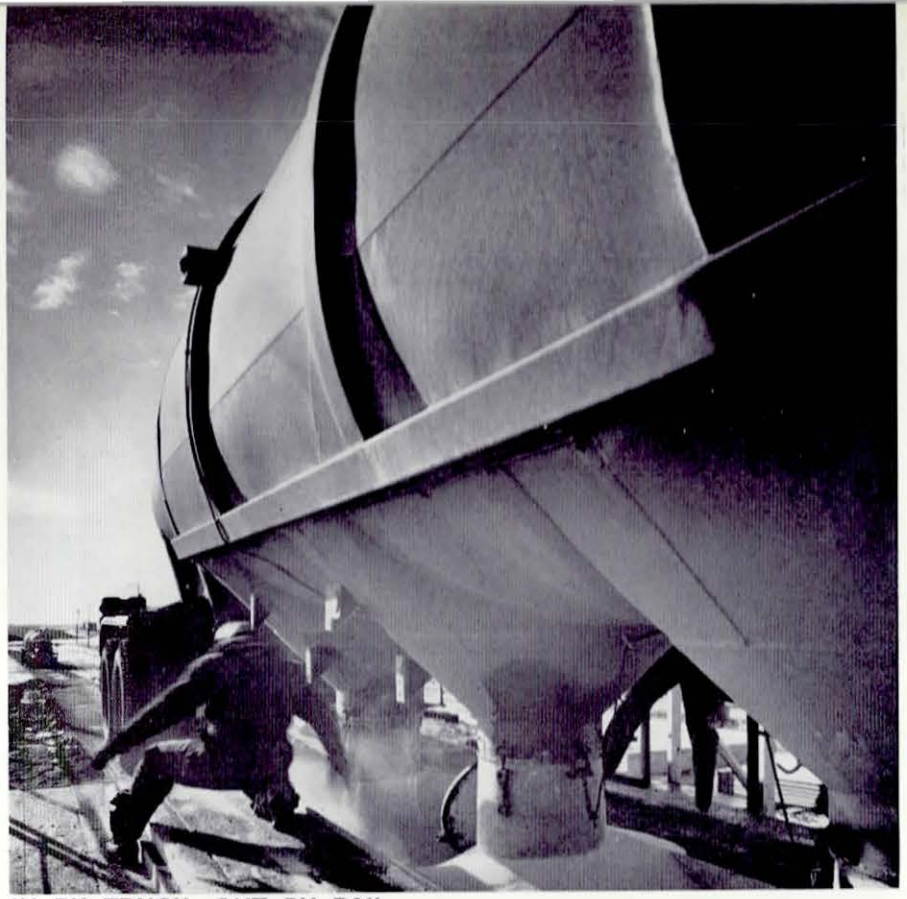
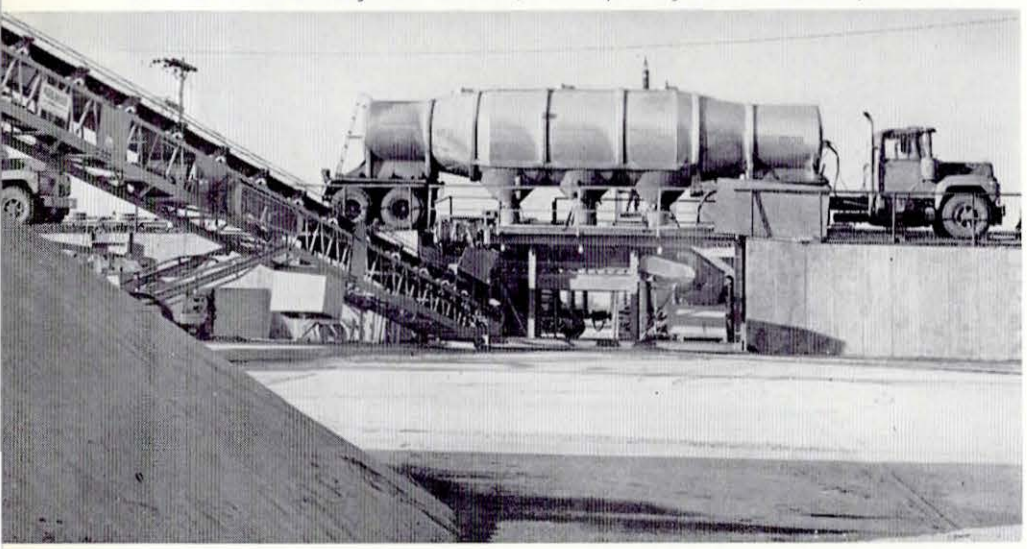


IN BY TRUCK, OUT BY RAIL

Tanker trucks bring potash from Saskatchewan to the Northgate railhead. Potash can be loaded directly into rail cars, or temporarily stored in the open.



be moving, to destination points now at Minneapolis and at Mendota and Beardstown, Ill.

As it's outlined by railroad people, the service does quite a few things. It is a profitable operation for the carriers. It tends to level out the seasonal peaks and valleys of potash movement. It provides an economical and fast method of getting this basic fertilizer material to consuming areas far from the source of supply. And it helps bring savings to the producers, whose problem, in part, has been not unlike that of the railroads: substantial investment required for production, and an erosion in the price of the product.

● **Ready-made market.** What's the measure of the market? Well, more than eight million tons of potash were used in the United States last year. The rate of use is climbing at 10%-plus per year. And the central-states region served by the GN-CB&Q unit trains accounts for more than two-thirds of U.S. fertilizer consumption.

This particular unit-train story starts at Esterhazy, Sask., site of rich potash deposits being mined by IMC. Trucks handle the first leg of the movement—special tanker trucks of Kleysen's Cartage Co., Ltd., of Winnipeg, which haul the potash from Esterhazy to a three-acre facility at Northgate, N.D.

At Northgate, there is provision for direct loading of covered hopper cars as well as for temporary storage of potash.

About 10 minutes is all that's required to unload one of the 25½-ton-capacity trucks. Potash can be unloaded into a 100-foot, trough-shaped conveyor system which leads to the railcar loading facility. Or, potash may be stored on a concrete slab large enough to hold 15,000 tons of the pink-and-white material.

Present operation calls for the loading of about 25 shipper-furnished covered hoppers per day. Loading equipment automatically feeds a predetermined tonnage into each car, depending upon its capacity.

● **The operation begins.** The first train out of Northgate had quite an audience, as six 1,500-hp Great Northern diesel-electric units got the 118 covered hopper cars rolling down the branch line toward a mainline connection at Berthold, N.D. On hand were GN's M. M. Scanlan, vice president-marketing; R. W. Downing, executive vice president; J. C. Kenady, assistant vice president-industrial development; V. P. Brown, assistant vice president-planning; T. C. Kryzer, market manager-oils, chemicals and fertilizers; and J. W. Wicks, Minot Division superintendent. Burlington sent C. E. Larson, assistant vice president-marketing; and J. R. Scalzo, marketing manager-minerals and chemicals. And from IMC came Paul A. Johnson, distribution manager; Vernon J. Hann, traffic manager; Thomas J. Reagan, manager-research and development; David E. Wilson, senior distribution specialist; Paul St. Onge, supervisor-warehouse and barge operations; Paul G. Mount, manager-distribution equipment and facilities; and Jack Edwards, Northgate terminal foreman. And up in North Dakota, far out on a branch, GN had even set up the ceremonial banner for the train to break through as it left the terminal.

The train's run was approximately 1,000 miles, Northgate to Mendota. GN handled it into Union Yard, Minneapolis; Burlington took it from there to Mendota, some 83 miles southwest of Chicago. Total transit time: 35 hours.

● **Impressive, all around.** GN's top marketing man, Mal Scanlan, had nothing but kind words for the whole operation: For one thing, he said, "we're greatly impressed with IMC's efficient loading procedure and with the quality of the cars. The operation was faultless. It went off like clockwork—indicating the tremendous amount of planning that went into it, and the close cooperation between IMC and the operating and marketing departments of GN and Burlington." ■

Urban growth needs early transit plans

A paper by Norman D. Lea, transportation consultant, prepared for the First Canadian Urban Transportation Conference at the Royal York Hotel, Toronto, Feb. 9-12, 1969, warns against urban development that does not provide for early acquisition of rights of way.

The serious consequences of such spotted growth, according to Lea, could mean disastrous results for new communities which suddenly find themselves important metropolises without adequate ground transportation for residents and transients.

The traffic strangleholds and the awkward chaos which make up such deadlocked situations could have been avoided, however, Lea says, if planners counted on acquiring rights of way around which their communities could have evenly grown and prospered.

But the danger of waiting too long to consider transportation in overall planning is still prevalent too frequently, according to Lea.

Toronto, on the other hand, Lea notes, is an example of a city which did the right thing when it came time to buy land for transportation purposes.

Going ahead of developers, Lea observes Toronto paid an average of $5,000 per acre in the early 1950s to obtain undeveloped land for construction of the Macdonald-Cartier Freeway section that by-passes the city.

But in contrast to this price, developed land in the adjacent area, if it were available for purchase today—which it is not—would cost $50,000 per acre, plus the staggering cost of expropriating industrial and private buildings, Lea says.

Stressing principles of early acquisition and reservation of land for well-planned transportation corridors, Lea also raises an interesting proposal for meeting the necessary financing.

He suggests a revolving fund for transportation corridors before land development. And, he adds, if the corridor land were acquired in a generous width—say 25% more than what is needed—the fund might be replenished by selling the extra land 15 years later.

It's a proposition to which Lea hopes government officials and transportation representatives will devote full attention in bringing about a more balanced system of urban development which includes streamlined rapid-rail transit. ■

Frank Malone

WATCHING WASHINGTON

TRUCKERS BRACE FOR "CRISIS"—Truckers say they're in a bind from de-regulation moves. Screw-tighteners include furniture haulers, farm co-ops, Railway Express Agency, hustling freight-forwarders, still-kicking railroads, and the Transportation Department. It's so bad, says Albert B. Rosenbaum, Regular Common Carrier Conference director, that motor carriers look like the United States in the Cuban missile crisis.

FEARS OF FREE ENTRY—What truckers fear is competitors' freer entry into general-commodity hauling. There's an ICC proposal to let new-furniture carriers haul more than furniture. Somebody has to move new furniture, but they can't survive on that alone, ICC says. Scared by an expanding farm cooperative, American Farm Lines, truckers got a law passed to limit such operations. But it's up to the ICC —which originally gave AFL general haul authority—to decide how the limits will be applied. There is further danger from REA, which has ICC temporary permission for general haul under a hub city plan. Finally, though truckers won Hill denial of freight-forwarder contracts with railroads, they expect a new skirmish.

RAILS: NEW PREDATOR—Truckers seem afraid of railroads, who too long were not afraid of trucks. On a track toward common ownership, rails plan a truck-industry takeover, and they're closer to success than ever, says J. David Brothers, American Trucking Associations former president. Before they can wipe out regulatory safeguards, railroads should be probed by Congress to see who owns them, Brothers says: "It could well be that we have already gone much farther down the road of common ownership than we realize."

DOT: NEW THORN—In DOT, rails have an "internal champion," but not trucks, Brothers adds. Not only that, says William A. Bresnahan, ATA director, truck matters are split by five DOT offices, while there was just one ICC motor carrier bureau. More than 100 DOT proposals for trucks will cost the industry plenty, Bresnahan says.

THEIR FINEST HOUR?— But there'll be positive moves, too. Truckers will drive for the truck-train bill they lost in the House. Assuming a finest-hour posture, Bresnahan says: "We've just begun to fight." The 91st Congress will find truckers ready with the gas, grease and gears of a strong campaign.

Rail accident analysis issued

Derailments up, train collisions down, FRA reports in summarizing rail safety statistics for '67.

The Federal Railroad Administration has released its final summary and analysis of railroad accidents in the United States in 1967.

According to the FRA, 2,408 persons were killed in rail-related accidents in 1967. They were killed in an assortment of accidents:

—1,219 rode in autos to grade-crossing tragedy.

—275 rode there in trucks.

—85 walked there, 17 rode cycles, nine went in buses, two tried to crawl between cars, and 25 lost the crossing race in or on miscellaneous vehicles and machinery.

—12 were train passengers.

—625 were trespassers.

—129 were on-duty rail employees, 10 were off-duty.

The number of crossing and trespassing fatalities dropped slightly from 1966, and the number of employee deaths rose a little. But the 7,294 train accidents in 1967 represent a 7% increase over 1966 and a total loss of $96.6 million.

Grade crossing accidents caused 1,632 deaths, compared with 1,780 in 1966. There were 3,812 crossing injuries, compared with 4,043 in 1966. However, there was the increase in train accidents. Derailments accounted for 4,960 of the 1967 total, and that was an increase of 513 over 1966. The number of train collisions dropped 2%.

"While the number of persons killed per million train-miles in transportation service dipped from 4.5 to 4.4 in 1967, the total of 851 fatalities from causes other than grade crossing accidents was the second highest on Class I railroads within the past ten years," FRA says.

In the period 1958-through-1967, there was a 22.2% increase in the number of fatalities per million train-miles. At the same time, there was a general downtrend in actual transportation train-miles for the railroads.

Trains striking or being struck by passenger autos made up the biggest category of crossing accidents. These totaled 2,906, compared with 2,964 in 1966, for a 1.9% drop. During the same time, auto registrations jumped 3.1%. The 1967 train-auto crashes killed 1,219 persons and injured another 1,043. Other figures show there were 780 truck-train collisions, compared with 837 in 1966, with 275 and 311 fatalities, respectively. And 85 pedestrians were killed at crossings, compared with 100 in 1966. The overall crossing picture shows a drop in total accidents involving motor vehicles of 3.3% in 1967.

The FRA accident bulletin points out a continuing annual increase in "derailment," "other train accident," and total "train accidents," with a slight decrease in the "collision" category. "The same upward trend is shown in the number of accidents per million train-miles. The total of all train accidents in 1967 was 22.2% greater than the number in 1965, while the rate of train accidents per million train-miles increased by 26.9% in the same period," FRA says.

In 1967, there were 4,960 derailments, 812 "other" train accidents, and 1,522 collisions, for a total of 7,294, compared with a 1966 total of 6,793. For 1966, the figures are 4,447 derail-

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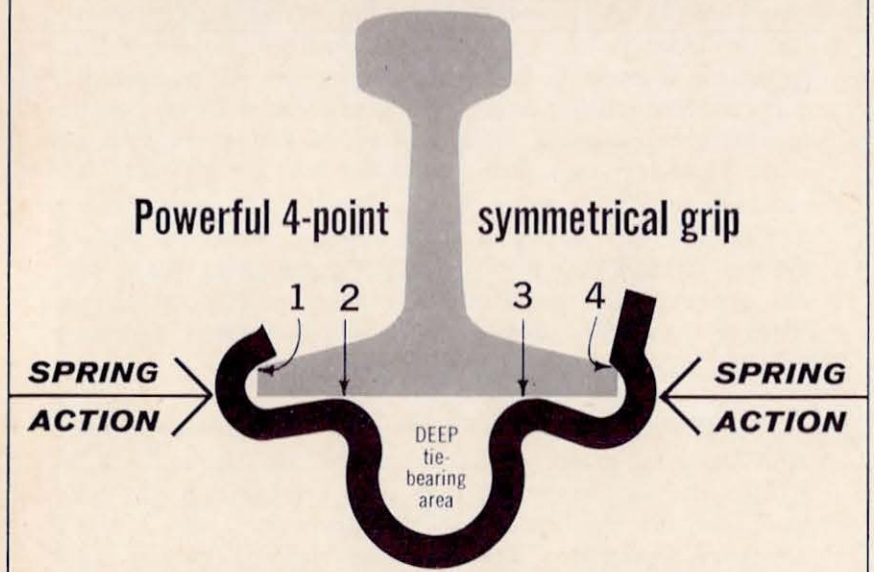

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ments, 794 "other," and 1,552 collisions.

Casualty figures show that most of the 1967 2,408 fatalities occurred at crossings, while 129 were employees on duty. But for injuries, the figures change to show 4,048 at crossings—and 10,784 in the employee category. This compares with 11,119 for 1966. Seven more employees were killed in 1967 than in 1966.

The employee situation also can be considered on the "severity rate" basis, disability days per million man-hours of employment. The rate for 1967 is 8% higher than for 1966 and 9.3% greater than 1965, though there was a decrease in both the number of injuries and the number of employment man-hours in the same period, FRA says. In 1967, there were 12.56 injuries per million man-hours, 1.5 million disability days, and 1,187 disability days per million man-hours of employment. These all are higher than the 1966 figures, but 1967 had less man-hours and less injuries.

FRA divides its accident analysis into train, train-service and non-train categories. "Under train-service class, comprising 90.1% of all deaths, the two major subclasses, 'accidents at public rail-highway grade-crossing' and 'struck or run over not at public rail-highway grade-crossing,' accounted for 60.3% and 24.1%, respectively. Train-service accidents also accounted for 64.8% of all injuries with the subclass 'miscellaneous' contributing the highest percentage within the class at 21.3%. Non-train accidents accounted for 3% of total fatalities and 32.1% of total injuries," FRA says.

Although the total number of train accidents for 1967 was 7.4% greater than for 1966, the total dollar damage to equipment, track and roadbed dropped 2.3% and average damage cost per accident decreased 9%.

Looking into the cause of train accidents, FRA finds that employee negligence accounted for 1,987 or 27% of the 1967 total. Equipment defects and failure accounted for 1,897 or 26%. Maintenance-of-way and structure defects accounted for 1,844 or 25%. The remaining 22% is attributed to "other" causes, including unknown ones.

Under employee negligence, the biggest category other than unknown is switches—for 536 accidents. Hand brakes form another big category with 373. Total value of damage attributed to employee negligence in 1967 is $13.2 million, or $6,663 per accident. Equipment defects accounted for $35.7 million, and maintenance defects, $25.2 million. Other causes add up to $24.9 million. The grand total is $96.6 million, or an average of $13,251 per accident. The figures are down just slightly from 1966. ■

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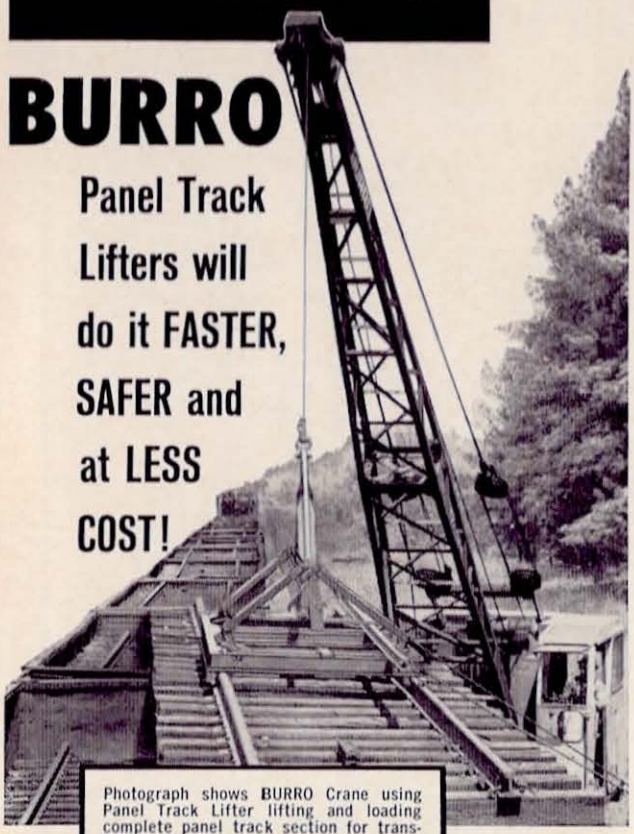
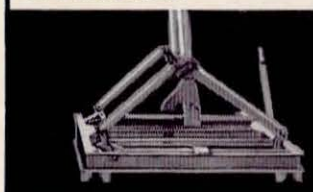


Photograph shows BURRO Crane using Panel Track Lifter lifting and loading complete panel track section for transfer to new location.



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AS THE EDITOR SEES IT

UNDERSTATED RETURN? — A lot of economists (especially those with amateur standing in the field) contend that railroads are really richer than they pretend to be. More often than not, these cynical Charlies base their case on the proposition that railroads consistently understate their rate of return on investment. The railroad industry's arithmetic, they argue, may be legal but it's hardly persuasive. There is a grain of truth in all of this. But that grain, by the time it gets into public print, more often resembles a bushel. Clearly, it is important to establish not merely whether the rate of return is understated —but to what degree. The ICC has now attempted to do just this.

OVERSTATED INVESTMENT? — In its report granting most of the freight-rate increases sought by railroads in Ex Parte 259, the Commission examined in detail some of the arguments purporting to show that the railroads are getting more for their invested dollar than the statistics show. One such argument holds that the rate of return is understated because the net investment is overstated—e.g., for purposes of calculating their rate of return, railroads should exclude from the net investment column such items as "Construction Work in Progress." This, the ICC conceded, is probably true. So—what? If all proposed corrections are made, the rate of return rises by "not more than .05%." So the estimated return for 1968 rises from 2.58% to 2.63%.

TOO MANY CHARGES? — Another criticism hauled out and inspected by the Commission was this: "Some railroads have included, in their charges against net railway operating income, Federal income taxes on income from non-railroad sources." Right again, agrees the ICC. So—what? Make the necessary adjustment and the rate of return goes up by another .01%, to 2.64%. The ICC's judgment: "Criticism valid, but not of significant importance."

WE'RE FRIGHTENED, TOO — Comparing railroad rate of return with airline rate of return may very well be, as some say, a bananas and apples affair. But it is not entirely irrelevant to report that only last week the president of American Airlines, George A. Spater, gave to the Aero Club of Washington a statistic that he found "frightening." It was this: The airline industry's rate of return in the fiscal year ended June 30 dropped to 6.2%, from 12.2% in calendar 1965. It is a sad comment on the state of transportation affairs that what frightens the airlines would send the railroads into seventh heaven.—**L.S.M.**

LETTERS

Unmentionable statistics

Philadelphia, Pa.

To the Editor:

Mr. James Laurie's article in the October 21 issue about "The statistics nobody wants to talk about" deserves several comments:

(1) There has been a shift of less carload (less truckload) traffic from rail to truck which contributes to the rise in motor carrier revenue per ton-mile and a decline in rail revenue per ton-mile. There are considerable statistics available to show this shift, and the much higher revenue per ton-mile prevailing on LCL (LTL) traffic than carload (truckload) traffic is well known.

(2) To hold traffic, the railroads have made drastic reductions in rates since 1958, giving shippers the benefit in lower rates of technological improvements—longer trains, larger capacity cars, better car utilization, etc. Even with two recent general rate increases, thousands of rates in use today are lower than in 1958.

(3) Continued rail service disadvantages result in railroads establishing lower rates than would otherwise be necessary to meet truck competition. With more competitive service, rails could hold the business at higher rate levels than now exist.

(4) *All* the above conditions helped to contribute to the better dollar showing of the trucks discussed by Mr. Laurie, as well as the probable better volume trend of truckload traffic when compared to rail carload traffic.

(5) As wages continue to escalate in 2% or 3% "bites" every six months, the time has definitely arrived for an overhaul of antiquated work rules. It is ridiculous to think that shippers, passengers and taxpayers should be called upon to pay for 1969 salaries on 1919 work rules.

Payments should be for excellent service. Too often they go for overmanned inefficiency and undermaintenance. The first victim of the inflation is maintenance as is all too evident.

There is no surer way to kill an industry or a nation than to continue the present "never-never land" thinking. Do we also have too many sacred cows? Are we to suffer in international competition like France and Britain, or have we the intelligence and fortitude to update working days and working jobs along with working pay? Here lies the road to possible, desirable and necessary growth in the railroad industry. The hour is late, and the task is large.

Z. Chafee, III
Manager
Freight Traffic Research
Penn Central

Wildcat strikes

Fostoria, Ohio

To the Editor:

You are to be congratulated on your editorial in the Oct. 28 issue entitled "A deathblow to wildcat strikes on railroads?" This is a landmark case and needs such publicity as you have afforded it.

D. M. Mennel
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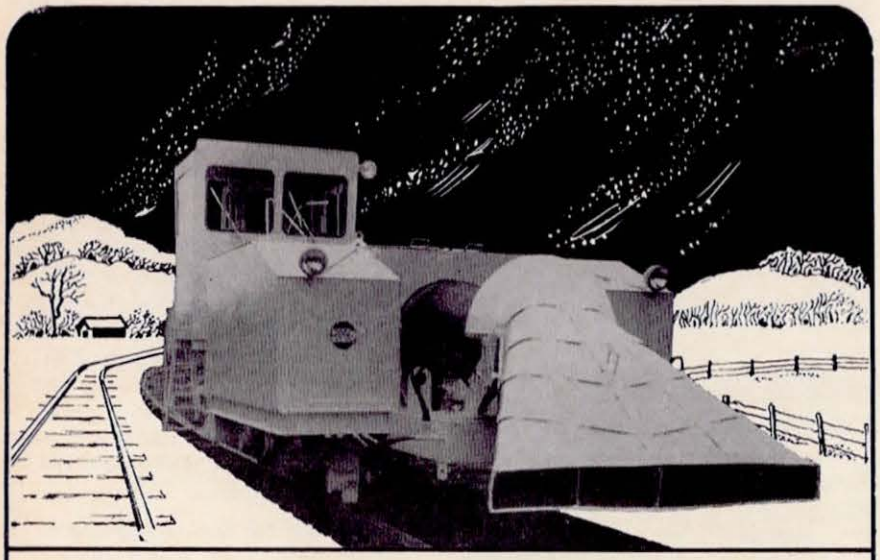
November 20, 1968



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RMC Snow Blowers

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French order gas turbine rail cars

After experiments lasting more than 12 months with a two-car gas-turbine-powered railcar set, French National Railways (SNCF) has placed orders for 10 four-car sets. Each will be powered by one gas turbine and one diesel engine (the latter presumably to be utilized at low speeds when the high fuel consumption of gas turbines would be uneconomic).

The new trains will have a basic top speed of 100 mph, with the possibility of reaching 113 mph over suitable sections of track. They are expected to enter service on the Paris-Caen-Cherbourg line early in 1970.

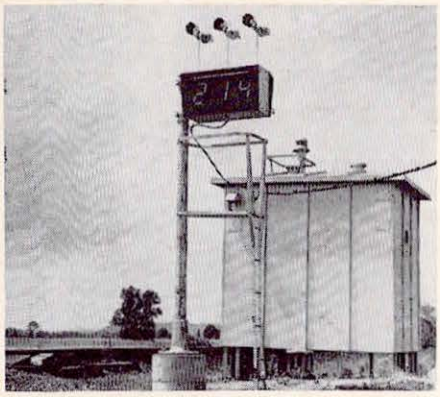
Travel times on the route will be cut substantially and services will be increased. From Paris to Caen (150 miles) the new scheduled time will be 109 minutes, instead of the present 138 minutes. From Paris to Cherbourg 47 minutes will be cut from the existing 229-minute run, giving an average speed of 122 mph.

Several French suppliers are sharing in the manufacture of the trains. Fitting of the gas turbines will be carried out at the SNCF workshop in Le Mans. The over-all length of each train will be 295 feet.

● **U.S. tests.** A gas-turbine-powered rail car is scheduled to resume tests next year in the U.S. The goal of the Tri State Transportation Commission and the Metropolitan Transportation Authority is to develop a dual-drive turbo-electric car for the Long Island Rail Road which could be third-rail powered through electric traction motors and would switch to a turbine-driven alternator with no sacrifice in performance when it leaves electrified lines.

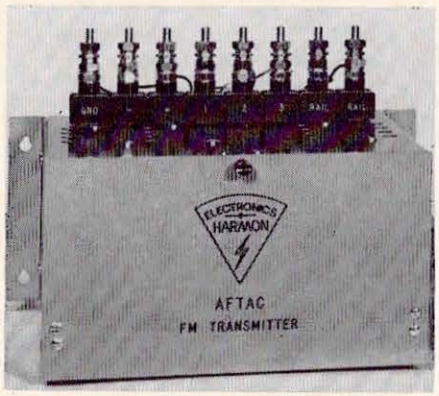
Budd and Garrett AiResearch cooperated on the initial phase of this project, which proved the capability of the gas turbine prime mover. With a recent DOT grant of $727,000 (RA, Sept. 16, p. 44), the car is to be fitted with the electric system which will give it the dual-power capability. Budd has indicated that the car might be ready for road tests by mid-1969 and that the testing would then take about six months. In addition to this experimental car with the underfloor power plants, the United Aircraft TurboTrains are also gas turbine driven, but these bigger engines require that the car floor be elevated to produce the "domes" which characterize the ends of the trains built for the New Haven and the Canadian National. ■

NEW PRODUCTS REPORT



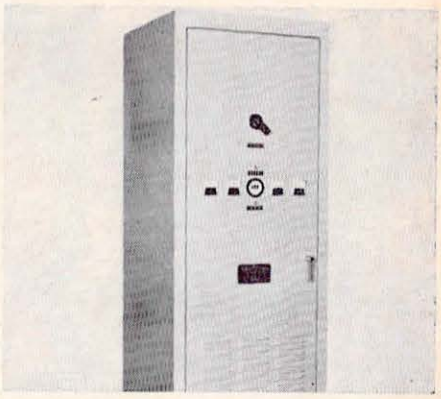
Display system (RA-1)

A new display system provides direct information to train crews when a hot journal box has been detected. Designed to operate with a standard hotbox detector, the model 8000 trackside display board alerts the train crew and presents a digital readout pinpointing the hotbox location by means of an axle count. The system consists of one trackside display board, axle locator unit, and test panel. A complete system is required for each detector site. *Servo Corp. of America*



FM track circuit (RA-2)

A new frequency modulated, tone modulated audio frequency train activated circuit has been developed for grade crossing protection or electric lock circuits where external interference may occur. Designed for circuits to 3/4 mile, the model 1111A has a power output of 1, 2 and 5 watt selective at an output impedance of 2 ohms. There are 23 carrier channels and 6 subtone channels. Shunting sensitivity-20 ft maximum, 5 ft or less receiver ring-by. *Harmon Electronics Inc.*



Static inverters (RA-3)

A new line of static inverters for those critical applications requiring continuous AC power was recently announced. With a sine wave output of 117 volts, 60 Hz single phase, these inverters range in capacities from 0.2 to 25 kva. Complete AC systems of the "standby' type with high-speed transfer switches (either 7 Hz transfer time or no-break 30% voltage dip for ½ Hz), charger and nickel cadmium pocket plate batteries are available. *NIFE, Inc.*

Crossing package (RA-4)

A complete standard line of automatic highway grade crossing control packages has been designed for use with light weight gates or standard flashing light signals. The type of warning device to be installed is not included as part of the control package.

The control equipment is packaged for grade crossing operation, single or double track. The control equipment is available in complete factory assembled housings ready for installation upon delivery, or unassembled for assembly and wiring in the field.

A typical control package is designed to give adequate warning to highway vehicular traffic in advance of a train approaching from either direction. The economy control housing contains the following circuit features: Protection Control—designed on the fail-safe principle; Directional Control—of the "stick" relay arrangement; Track Circuits—detecting portion housed and integrated; Power Supply—arranged for standby battery; Adjustable Resistors—wired into the flashing light circuits to provide voltage adjustments; Plug-in Relays—rack mounted standard equipment. *WABCO Signal & Communications Div.*

Data sets (RA-5)

A new high-speed solid-state data set, designated T201B, is designed to accept data from a business machine, or data terminal, at the transmitting end, and deliver data to a remote receiving terminal over private and public communication channels. The data set transmits at a fixed rate of 2,400 bps. Four-phase modulation reduces channel bandwidth requirements to half that required by normal binary modulation. *Sangamo Electric Co.*

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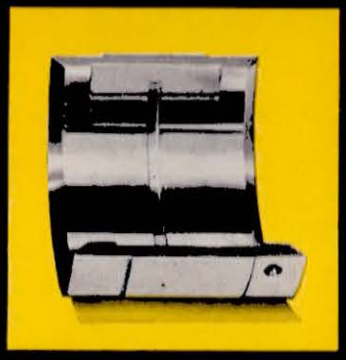

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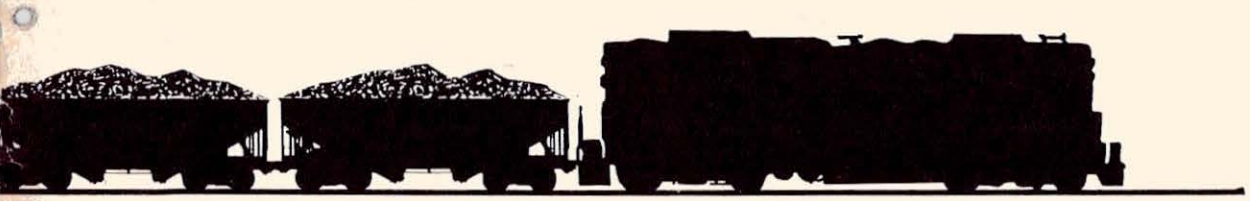

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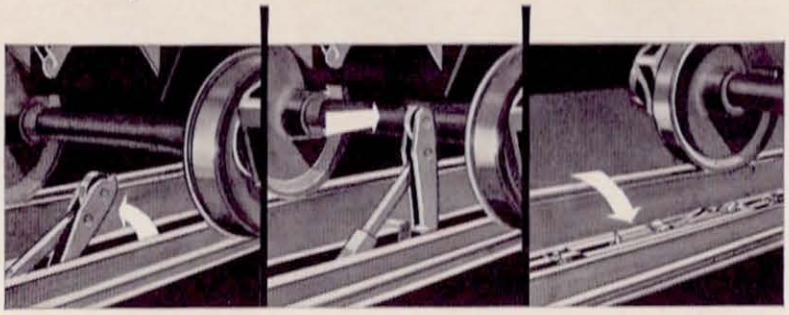

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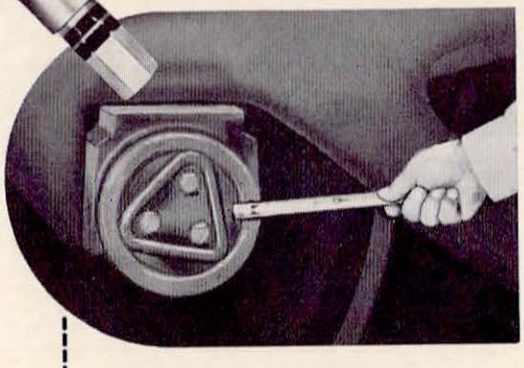

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Don Ball, Jr.
Pullman

Edwin F. Lord
CF&I Steel

SUPPLY TRADE

Don Ball, Jr., has been appointed eastern sales manager, Transport Leasing Division, **Pullman Incorporated,** at New York. Formerly, Mr. Ball managed the Los Angeles office and sales territory, Shippers Car Line Division of ACF Industries.

Edwin F. Lord, general manager-product sales, **CF&I Steel Corp.,** has been elected vice president-sales, to succeed the late **Alan G. Grey.** Mr. Lord's headquarters remain in Denver.

National Castings Division, Midland-Ross Corp., has announced that division headquarters will be transferred from Cleveland, Ohio, to Sharon, Pa., sometime during the second quarter of 1969. The division's Technical Center will remain in Cleveland.

Robert V. Emling, manager—railroad automation sales, **General Electric Co.,** has been appointed manager—government contracts, system sales and engineering, transportation equipment business.

Unity Railway Supply Co., Inc., has moved its main office to new and larger quarters at 332 S. Michigan Avenue, Chicago, Ill. 60604.

Frank L. Harper and **Bill Giddings** have been named regional managers of Telecommunications Systems Sales, Communication Products Department, **General Electric.** Mr. Harper, formerly western states major account specialist in California, will head the western sales region, Palo Alto, Calif. Mr. Giddings will head the central sales region, Shawnee Mission, Kans. He was previously major account specialist, with headquarters at Dallas.

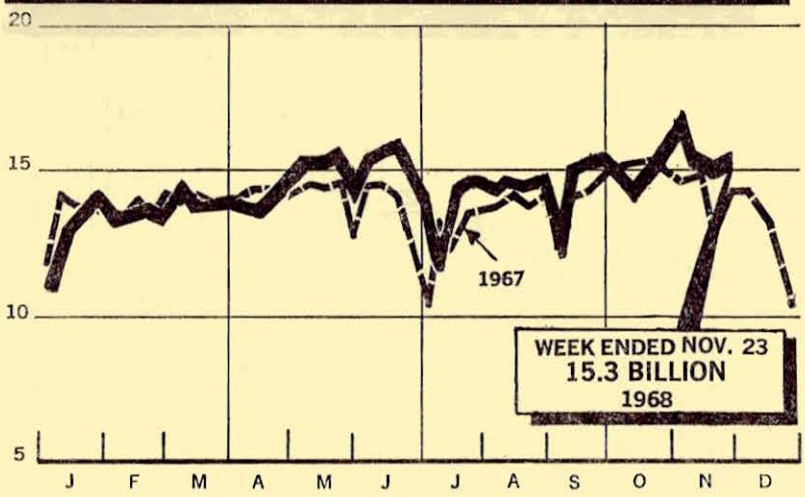
Allan McCarthy has joined the **Western-Cullen** Division of **Federal Sign & Signal Corp.** as a sales engineer at Chicago. Mr. McCarthy was formerly sales manager, American Equipment Co. of Chicago. He will be responsible for sales of cranes, signaling equipment and track hardware items to the railroad industry.

OBITUARY

Lester N. Selig, 75, director, retired chairman and president, **General American Transportation Corp.,** died Nov. 22 at his home in Palm Springs, Calif.

RAIL FREIGHT TRAFFIC TRENDS

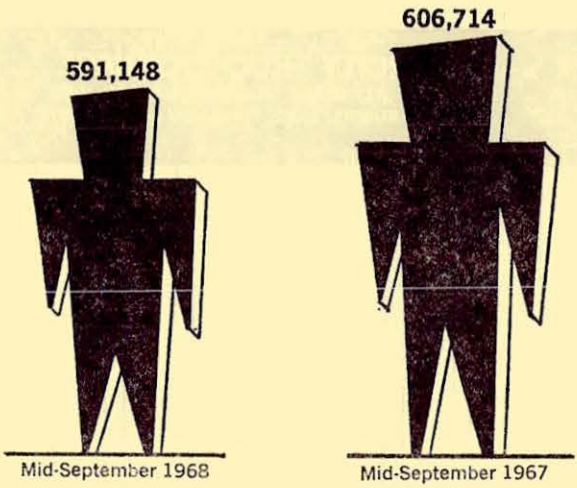
BILLION TON-MILES (Estimated)



Source: Association of American Railroads

RAILROAD EMPLOYMENT

(CLASS I LINE-HAUL RAILROADS)



Mid-September 1968 — Mid-September 1967

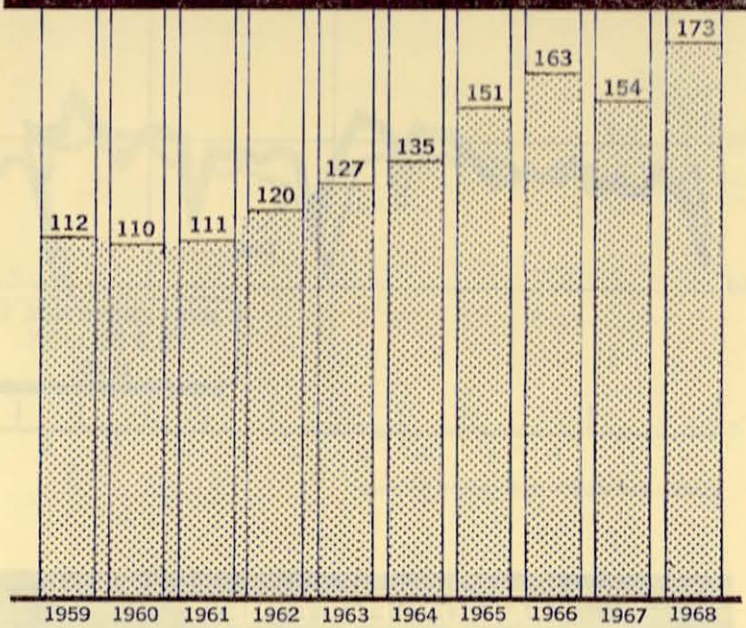
Source: Bureau of Economics, ICC.

Current Statistics

Net income, Class I roads	
Nine months, 1968	$386,000,000
Nine months, 1967	342,200,000
New freight cars on order	
Nov. 1, 1968	21,395
Nov. 1, 1967	21,062
New freight cars delivered	
10 months, 1968	47,595
10 months, 1967	72,490
Serviceable cars	
Nov. 1, 1968	1,386,822
Nov. 1, 1967	1,414,381

INTERCITY TRUCK TONNAGE

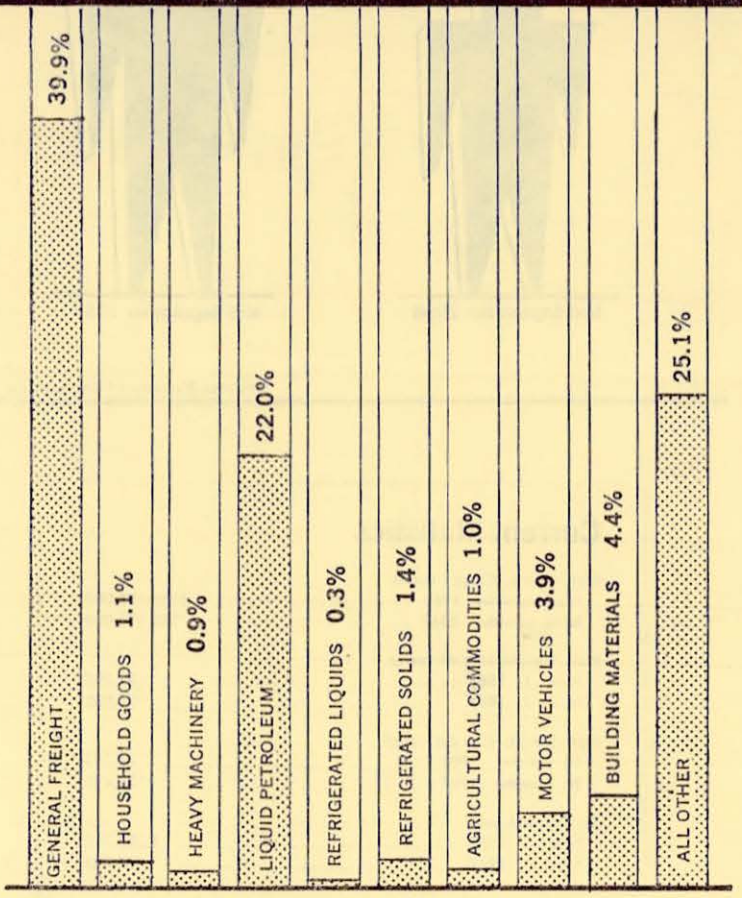
SECOND-QUARTER INDEX
(1957-59 = 100)



Source: American Trucking Associations.

INTERCITY TRUCK TONNAGE

BY COMMODITY CLASS, SECOND QUARTER 1968
(NO. OF CARRIERS: 2,422; TONNAGE: 148,514,698)



Source: American Trucking Associations.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended Nov. 30 totaled 511,826 cars, the Association of American Railroads announced on Dec. 6. This was a decrease of 66,555 cars, or 11.5%, compared with the previous week; a decrease of 44,889 cars, or 8.1%, compared with the corresponding week last year; and a decrease of 60,363 cars, or 10.5%, compared with the equivalent 1966 week. Ton-miles generated by carloadings in the week ended Nov. 30 are estimated at 13.4 billion, a decrease of 6.4% below the corresponding week of 1967, and 6.0% below the 1966 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, Nov. 23

District	1968	1967	1966
Eastern, including Allegheny & Pocahontas	212,478	192,763	206,130
Southern	133,090	106,159	110,358
Total Eastern and Southern Districts	345,568	298,922	316,488
Northwestern	68,824	59,030	66,499
Central Western	121,243	97,869	104,837
Southwestern	42,746	35,800	36,233
Total Western Districts	232,813	192,699	207,569
Total All Roads	578,381	491,621	524,057
Commodities:			
Grain and Grain Products	51,800	46,288	51,426
Livestock	2,395	1,910	2,530
Coal	108,313	95,182	100,825
Coke	7,405	7,284	7,735
Forest Products	45,790	33,279	33,036
Ore	29,043	27,931	33,632
Merchandise l.c.l.	4,159	3,846	5,421
Miscellaneous	329,476	275,901	289,452
Nov. 23	578,381	491,621	524,057
Nov. 16	554,611	572,891	609,013
Nov. 9	577,180	569,281	585,787
Nov. 2	611,819	575,552	613,751
Oct. 26	597,434	592,495	644,078
Cumulative total, 47 weeks	25,723,652	25,537,634	26,998,857
Estimated revenue ton-miles (billions) weeks	677.8	653.1	673.0

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended Nov. 23 totaled 26,575 cars, carrying 43,007 trailers, compared with 21, 164 cars, carrying 35,051 trailers in the corresponding 1967 week. Loadings for 1968 up to Nov. 23 totaled 1,218,484 cars, carrying 1,985,426 trailers, compared with 1,091,223 cars, carrying 1,794,085 trailers, in the corresponding period of 1967.

IN CANADA

Carloadings for the seven-day period ended Nov. 14 totaled 73,568 cars, compared with 77,942 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd. from Connections
Totals for Canada		
Nov. 14, 1968	73,568	23,669
Nov. 14, 1967	69,533	23,507
Cumulative Totals		
Nov. 14, 1968	3,294,623	1,077,266
Nov. 14, 1967	3,335,187	1,082,544

FREIGHT-TRAIN CARS

• *Chicago & North Western.*—Ordered 2,000 79-ton, 50-ft box cars from Pullman-Standard at a cost of $30,255,000. Deliveries will begin in mid-March and be completed by next June 1. All cars will be equipped with cushion underframe, steel flooring, roller-bearing trucks and lading protection equipment.

• *Illinois Central.*—Will build 600 100-ton open-top hopper cars at Centralia, Ill., company shops.

• *Norfolk & Western.*—Ordered an additional 1,000 70-ton, 50½-ft box cars from ACF. N&W announced the order of 1,000 identical cars from ACF the previous week (RA, Dec. 2, p. 37).

Value of the two orders is $31 million. The cars will be built in St. Louis; deliveries will begin in March 1969. They will be equipped with ACF Freight-Saver cushion underframes and roller-bearing trucks, and will have 16-ft double plug doors and 50,000-lb floors.

CAR OWNERSHIP

• *Serviceable cars.*—Revenue freight cars in serviceable condition owned by Class I railroads on Nov. 1 totaled 1,386,822, compared with 1,414,381 on Nov. 1, 1967, according to most recent AAR Car Service Division report. Estimated total ownership of all railroad- and privately-owned freight cars on Nov. 1 (see table below) was 1,801,555 (average capacity: 64.12 tons), compared with 1,829,213 (average capacity: 62.64 tons), on Nov. 1, 1967.

ESTIMATED OWNERSHIP—ALL REVENUE FREIGHT CARS
(Nov. 1, 1968 vs. Nov. 1, 1967)

		Box	Covered Hopper	Gondola	Hopper	Flat	Refrig.	All Others	Total
Class I	1968	552,825	123,046	197,708	412,690	67,883	52,669	56,667	1,463,488
	1967	572,953	118,784	202,960	421,605	66,466	51,045	59,428	1,493,241
RRO&C Refrig.*	1968	0	0	0	0	0	48,204	0	48,204
	1967	0	0	0	0	0	51,822	0	51,822
Private	1968	1,246	28,207	286	3,833	41,550	16,184	172,737	264,043
	1967	1,461	27,315	295	2,610	39,896	14,443	171,912	257,932
Class II & S&T/	1968	9,084	889	5,071	8,307	590	789	1,090	25,820
	1967	9,224	819	5,306	8,379	648	688	1,154	26,218
GRAND TOTAL	1968	563,155	152,142	203,065	424,830	110,023	117,846	230,494	1,801,555
	1967	583,638	146,918	208,561	432,594	107,010	117,998	232,494	1,829,213

*Railroad owned and controlled refrigerator car lines.
†Class II railroads and switching and terminal companies.

CAPITAL EXPENDITURES

• *Northern Pacific.*—Capital-expenditure program for 1969 will total $41 million, up about $6.2 million from 1968 spending levels. About $16 million will go for motive power and freight-car acquisition, $13 million for track and roadway improvements. NP orders will include 10 3,600-hp diesel-electric units and approximately 630 new freight cars. The fixed-plant program will include rail relaying on 96 miles of mainline track and 25 miles of branchline and secondary track.

YOU OUGHT TO KNOW

SFI to offer shareholders new exchange chance

Santa Fe Industries is filing with the Securities & Exchange Commission to reopen the exchange offer of Santa Fe Railway which was terminated Oct. 4. SFI would set a new deadline date of Dec. 30. At the close-off of the original offer, more than 97% of the outstanding stock of the railway company had been exchanged. SFI says the reopening was decided upon in answer to requests from holders of railway stock, and because "it is in the interest of all stockholders to obtain as near 100% exchange as possible."

CN, Greyhound offer rail/bus transportation

Through rail/bus transportation between major U.S. cities and Canada is now available under a joint agreement reached between Canadian National Railways and Greyhound Lines. Garth C. Campbell, general manager of passenger sales and services, CN, Montreal, said the combination rail/bus tickets can be purchased from CN or Greyhound agents or from travel agents in the U.S. or Canada. CN will provide the train service in Canada, Garth said, and Greyhound will do the driving in the U.S.

Material-handling equipment bookings nearing a record

Dollar volume of bookings of new industrial material-handling equipment came within a whisker of the $1-billion figure through the first three quarters of 1968—and the total for the year may wind up as a new record high. Three-quarter bookings reached $988 million, up 10.3% from the same period in 1967 and up 5.4% from the three-quarter period in '66, the year in which the present dollar-volume record was set.

G. M. Harrison, retired Clerks chief, dies

George M. Harrison, for 35 years president of the Brotherhood of Railway Clerks, died Dec. 1 in Cincinnati. Adviser to three Presidents, one-time member of the U.S. delegation to the United Nations and one of the few rail labor leaders to serve as an AFL-CIO vice president, Mr. Harrison led the BRC from 1928 until 1963 as president. Subsequently, he became chief executive officer, then grand president emeritus, and finally international president emeritus of the union which is now known as the Brotherhood of Railway and Airline Clerks. He had been a member of the organization for 51 years at the time of his death.

Intermodal transport: An air spokesman's view

Genuine intermodal transportation will not be accomplished by new or changed legislation or regulations, in the view of Allen J. O'Brien, director of the Aerospace Industries Association's Traffic Service. "The real stimulus will be provided by demands of users and the innovations of carriers," O'Brien told the Transportation Conference of the Defense Supply Agency in Boston. "If the two factors could be measured for relative importance, in my opinion the actions of carriers would be found to be most essential." O'Brien's prescription for implementing the intermodal concept: voluntary establishment of through routes and joint rates.

NIT League elects new officers

K. P. Tubbs, manager of the Transportation Department of the Dallas (Texas) Chamber of Commerce has been elected president of the National Industrial Traffic League. The League's new vice president is F. L. Merwin, vice president, American Smelting & Refining Co. August Heiss, general traffic manager, R. J. Reynolds Tobacco Co., continues as NITL treasurer. At the League's annual meeting in Los Angeles a proposal to change the title of the group's executive secretary to executive vice president was approved. Lester J. Dorr, who had held the old title, is the League's first executive vice president. The group's 1969 annual meeting will be held in the Americana Hotel, New York City, Nov. 19-21.

PEOPLE

BALTIMORE & OHIO.—Dennis J. McLean, sales representative, Baltimore, appointed customer service manager, merchandise freight sales department, Cleveland. **Anthony J. Scarpino,** sales representative named district sales manager—perishable and livestock Philadelphia.

BANGOR & AROOSTOOK.—Hiram E. Childers appointed superintendent of signals and communications, Houlton, Me., succeeding **Thomas W. Cudhea,** whose headquarters were at Derby, Me., before his retirement on Nov. 29. Mr. Childers was formerly signal supervisor, New York Division, **Baltimore & Ohio.**

BURLINGTON.—Eugene L. Olson, sales manager, Peoria, Ill, transferred to Chicago. **Bert Vickery, Jr.** succeeds Mr. Olson. **Eugene E. Mallette,** sales manager, St. Louis, transferred to Detroit. **Burt B. Johnson,** assistant sales manager, Eugene, Ore., named sales manager, Seattle. Mr. Johnson's successor is **Gary G. Gustafson,** sales representative, Eugene.

Howard L. McCoy, sales representative, New York, named assistant sales manager there.

CANADIAN PACIFIC.—G. A. Morison, engineer special projects, Montreal, appointed engineer of buildings. **J. S. Smith,** acting engineer buildings, named engineer of special projects. **J. Norman,** acting assistant engineer buildings, appointed assistant engineer of buildings.

CHESAPEAKE & OHIO—BALTIMORE & OHIO.—G. Vernon Frederick, assistant advertising manager, Baltimore, retired after 50 years of railroad service.

COLORADO & SOUTHERN—FORT WORTH & DENVER.—Effective Nov. 16, accounting offices of C&S and FW&D coordinated at Denver. **D. A. Rainey** appointed general auditor; **H. B. Loftis,** assistant general auditor; **T. D. Brown,** manager revenues; **R. M. Ritenour,** manager disbursements; **R. D. Phillips,** manager internal audits; **D. R. Webb,** freight claim agent; **E. W. Ring** and **L. F. Dowd,** assistant managers revenues; **W. E. Pierce,** assistant manager disbursements.

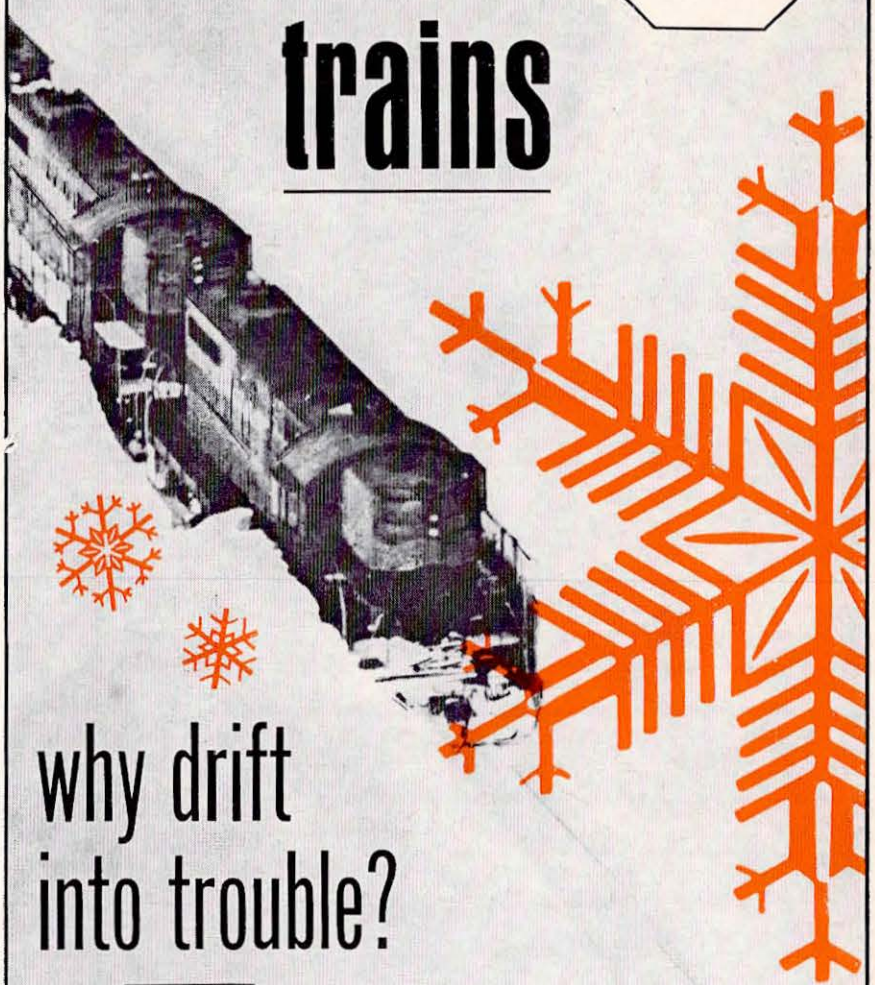
ERIE LACKAWANNA.—Paul W. Johnston, Jr., director of piggyback, appointed assistant vice president, piggyback traffic and container development, Cleveland. **C. E. Wogan,** superintendent, Mahoning Division, Youngstown, Ohio, appointed superintendent, piggyback terminal operations, at Cleveland, with responsibility for these operations at Cleveland, Jersey City, Buffalo and Chicago **K. W. Dingle,** superintendent, Susquehanna Division, Hornell, N.Y., succeeds Mr. Wogan at Youngstown. **E. J. Robisch,** superintendent of yards and terminals, Cleveland, succeeds Mr. Dingle at Hornell.

A. G. Dustin appointed assistant to vice president—operations and maintenance, Cleveland.

GREAT NORTHERN.—David S. Gleason,

UT&D/67/6

snowflakes stop trains



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Circle 18 on coupon page 29

John B. Reid
SP

Robert J. McLean
SP

William F. McGrath
WP

L. Byron Larson
WP

metallurgist, mineral research and development department, appointed director of mineral development, to succeed **R.A. Watson,** resigned to become manager of mineral development, **FMC Corp. Thomas P. Wollenzien,** geologist, Williston, N.D., advanced to senior geologist, St. Paul. **Eugene C. Bredeson,** chemical engineer, St. Paul, named mineral development engineer.

GREAT NORTHERN-NORTHERN PACIFIC.—Richard K. Hance named audio-visuals director for the two roads with operations centering in the jointly-owned auditorium in the railway building, St. Paul. Mr. Hance was formerly director of news and special events of WFLF-TV, Field Communications Corp., Chicago.

ILLINOIS TERMINAL.—Douglas S. Theroff appointed trainmaster, and **Harold M. Daech,** freight agent, Decatur, Ill. **E. F. Moore** named chief special agent, McKinley Junction Yard, Ill.

LOUISVILLE & NASHVILLE.—E. Leo Koester appointed manager of public communications. He was formerly public relations director, **Zimmer, McClaskey, Lewis Advertising,** Louisville. **Woodson Knight,** assistant director of public relations and editor of the L&N Magazine, named manager of publications and company relations.

W. E. Tatum, chief clerk, freight sales office, New Orleans, named freight traffic agent, Detroit.

Clifford J. Haury, superintendent of dining cars, retired. **Louis J. Hines** named supervisor, dining car services.

MILWAUKEE.—George V. Valley, assistant regional manager of sales, New York, named regional manager of sales there, to succeed **E. Stuart Rogers,** transferred to Kansas City, Mo. (RA, Nov. 11, p. 37). **Bernard H. Desens,** district manager of sales, Minneapolis, replaces Mr. Valley.

MISSOURI PACIFIC.—John E. Angst elected a vice president. He was formerly group vice president, **General American Transportation Corp.**

SANTA FE.—James Cowie, assistant freight claim agent, Los Angeles, named freight claim agent there, to succeed **H. W. Gentle,** who retired Dec. 1 after more than 52 years' service. **R. L. Steis,** special representative, Los Angeles, replaces Mr. Cowie.

SOUTHERN PACIFIC.—John B. Reid, vice president and treasurer, named senior vice president, executive department. **Robert J. McLean,** assistant vice president and assistant treasurer, succeeds Mr. Reid as vice president and treasurer.

WESTERN PACIFIC.—William F. McGrath, general freight pricing manager, San Francisco, appointed assistant vice president-pricing. **L. Byron Larson,** freight pricing manager, succeeds Mr. McGrath.

WESTERN TRUNK LINE COMMITTEE.—J. R. Ahlstrom, member, standing rate committee, appointed vice chairman, to succeed **Glenn W. Stokes,** who retired Dec. 1 after 48 years of railroad service.

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John M. Brennan—regional sales manager
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VIEWPOINT

What the papers didn't say about that rate hike

Twice in two years the railroads have gone to the Interstate Commerce Commission for freight-rate increases. And twice the ICC has come through—with all deliberate speed.

In Ex Parte 256, the railroads won $300 million of a requested $327 million. In Ex Parte 259—filed just a month after the Commission issued its final report in 256—the railroads got $450 million of a requested $466 million, at least on an interim basis. (A final report is due in January 1969.)

That adds up to $750 million a year. The second increase, especially, was bitterly fought by shippers. They lost. And judging from their reaction, you'd think the ICC had given the railroads a license to print money.

Undeniably, the ICC's approval of the Ex Parte 259 increases was warmly welcomed by the railroads. It was urgently important—as a holding action. But it was nothing more than that. The ICC itself made this clear.

In reporting the railroads' latest rate triumph, the newspapers did not pick up the following table from the Commission's report. But it is vital to an understanding of the railroad dilemma. It compares the actual year 1966 with a "constructive year"—i.e., a year with projections based on estimated 1968 traffic and second-half 1968 wage rates, material prices and other cost factors in effect for a full 12 months:

OPERATING EXPENSES, RENTS, TAXES AND FIXED CHARGES
(excluding federal income taxes)
(millions)

	1966	CONSTRUCTIVE YEAR	INCREASE	
Operating expenses	$8,117.7	$ 8,594.0		
Equip. & jt. fac. rents	522.8	649.2		
Taxes	968.4	1,025.9		
	$9,608.9	$10,269.1		
Less F.I.T.	186.3	136.5		
Total operating expenses	$9,422.6			
Adjusted for C.Y. volume	$9,331.5	$10,132.6	$801.1	8.58%
Fixed Charges & Interest	463.5	517.8	54.3	
TOTAL, Expenses & Charges	$9,795.0	$10,650.4	$855.4	8.73%

What this table says is that railroad operating costs, during the period covered by the two increases, have risen by $801.1 million. To this must be added $54.3 million in higher fixed charges and contingent interest. Total added expenses: $855.4 million. Subtract from that the $750 million the railroads actually won—and the industry is still short by more that $100 million of meeting its increased costs. (And the rate of return on investment, the Commission says elsewhere, will still be only slightly more than 3%, compared with 3.90% in 1966.)

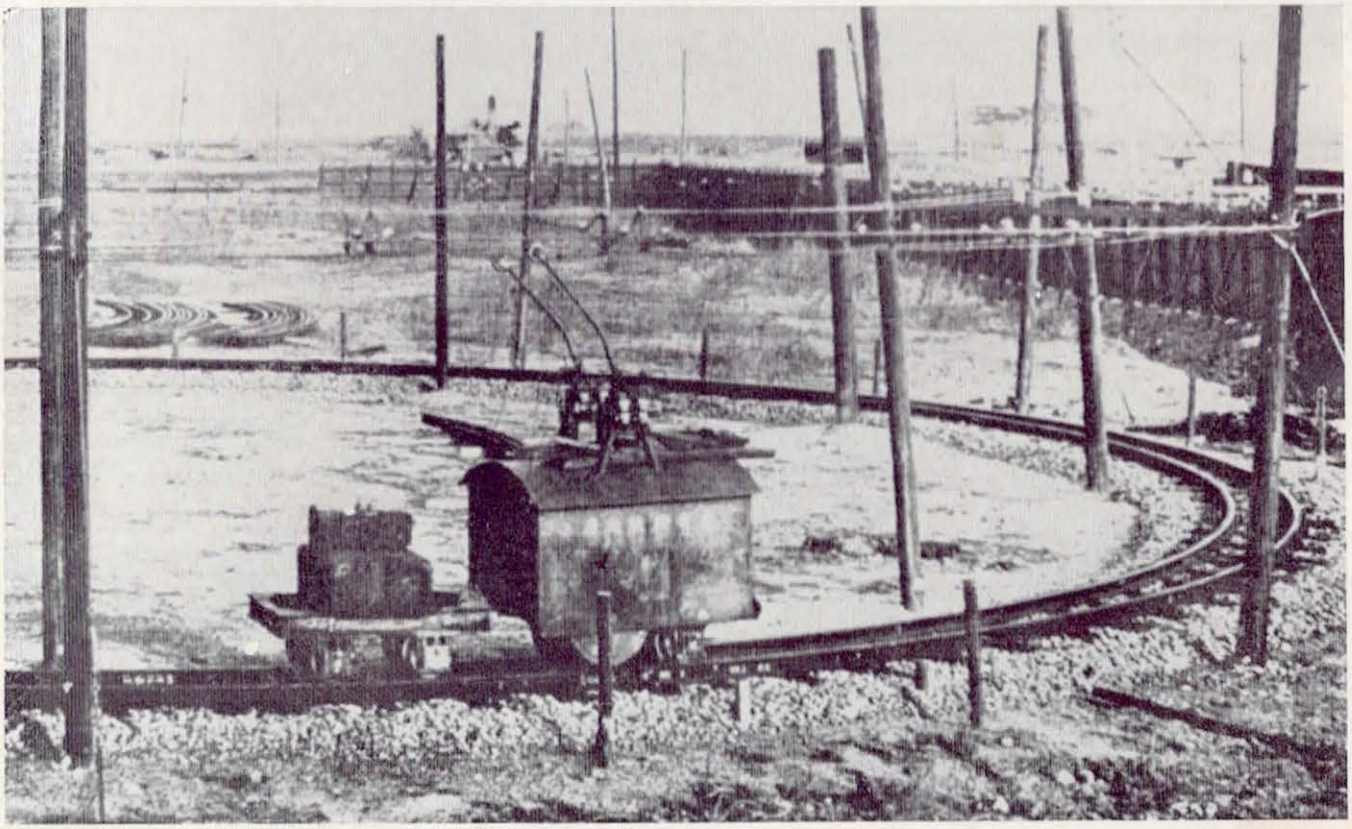
All of this hardly suggests that the railroads have struck it rich. On the contrary, a careful reading of the ICC report suggests that as sound businessmen, railroaders may soon have to make another trip to Constitution Avenue.

May Christmas last forever!

Kerite

Sumitomo is the first foreign rolling stock parts maker to get AAR approval.

Is a history of original research the reason?



This photograph is 40 years old.
We took it at our Osaka Works in 1928 during a ten-year study of the abrasion of rails and rolling stock, in collaboration with the Japanese Government Railways. And presented the results of the research at the 2nd International Rail Assembly in Zurich in 1932.
The unusual thing is that today these results are still regarded as definitive. Nobody else has ever had to do this kind of research.
Maybe nobody else ever will.

Original rolling stock research characterizes our long history of manufacture. Our current work, for instance, will show us how to build wheels and axles for a new Japanese National Railways super-express expected to operate at speeds up to 160 mph. For this train, wheel tests are being conducted at speeds up to 200 mph.
And we built the testing machine.

There's a multitude of ways you can benefit from our research, because we make more rolling stock parts than any other steelmaker.
In the world's largest (and most economical) wheel-making mill.
Our rolling stock parts line is so complete that you may never have to turn to another supplier.
And the quality of these products is unquestioned. That's another reason why we're the first foreign rolling stock parts maker to get Association of American Railroads approval, for wheels, axles and wheel sets.
We'll tell you more if you write.

SUMITOMO METALS
SUMITOMO METAL INDUSTRIES, LTD. TOKYO, JAPAN

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